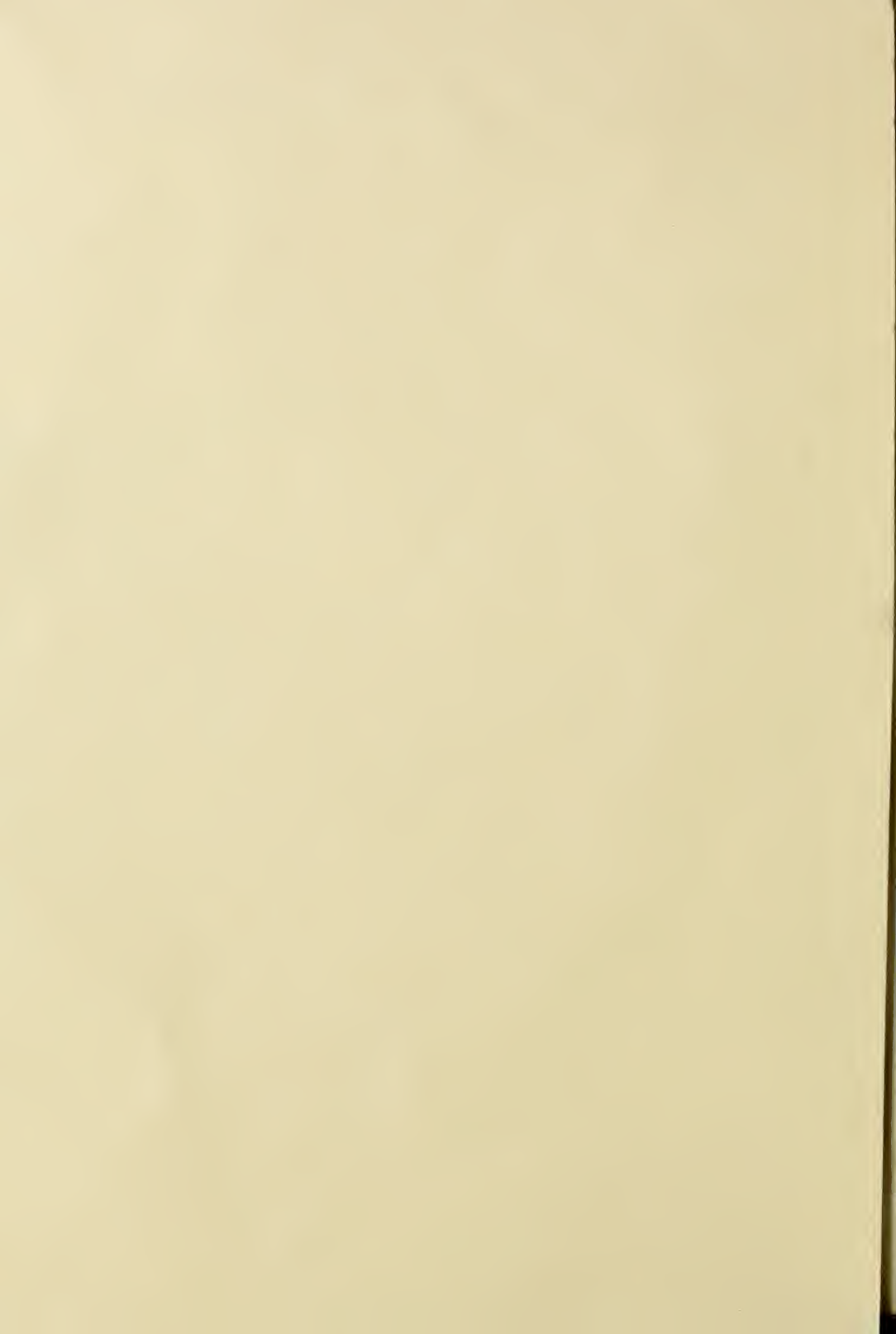


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# MARYLAND FARMER AND MECHANIC:

DEVOTED TO

Agriculture, Horticulture, Rural Economy & Mechanic Arts.

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Vol. 1. BALTIMORE, JANUARY 1, 1864. No. 1.

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## TO OUR FRIENDS.

### SALUTATORY.

In the following pages we beg leave to introduce the initial number of "THE MARYLAND FARMER AND MECHANIC," sincerely trusting that all those who are interested in industrial pursuits will find in its columns articles of sufficient merit to justify them in extending their favourable regard to our new enterprise. Every body knows that, owing to the intense excitement that has pervaded the public mind during the past two years and a half, a large proportion of the agricultural periodicals that flourished previously have gone out of existence. We believe, nevertheless, that there are many who now regret that publications so avowedly useful should have ceased for a time to attract attention from the class of readers to whom they were specially addressed and whose best interests they were designed to promote, and that they long to return to that useful and suggestive reading which relates to their customary and peaceful fields of thought and action. At all events, it is a matter of no small moment on the part of every one—whether he be an agriculturist, a tradesman, or a manufacturer—to make the best use of his faculties in whatever sphere he may be placed, and to disdain no assistance which books or periodicals may have power to render in suggesting improvements upon old processes, or in pointing out more skilful or more economical means of attaining desired results. THE MARYLAND FARMER AND MECHANIC has been started to foster and encourage so praiseworthy a purpose. Its pages will be filled with suggestions on rural affairs generally, and with interesting articles on mechanics, but more especially in regard to such machines as are of service in abridging manual labour. Due attention will also be given to every thing that relates to

domestic economy, and to the cultivation of a purer taste in the construction of country houses and their adjuncts, and in the decoration of the homestead.

The Field, the Orchard, and the Dairy; the management of Stock; the cultivation of Flowers, Evergreens and Climbing Plants; the simpler elements of Landscape Gardening; Farm Houses and their surroundings; Hints on Colour; Hints on Domestic Economy—these are the topics which will be treated of in the forthcoming pages of the THE FARMER AND MECHANIC, and in their scope and variety and in their importance as adding to the profit of the farmer or the planter and to the comfort and convenience of his household, will be found, we trust, the best justification for our new enterprise, and the best guarantee that it will be warmly welcomed and liberally sustained.

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## TO OUR READERS.

To the many friends of the old AMERICAN FARMER and the RURAL REGISTER—both of which are now extinct—we have taken the liberty of forwarding a prospectus of our new periodical "THE MARYLAND FARMER AND MECHANIC." We have also sent a similar circular to many others to whom we are perhaps less known; but with the earnest hope that we shall be better acquainted in future. Our desire is to make "THE FARMER AND MECHANIC," a welcome guest at the fireside, and a suggestive companion in the field and the workshop. The bond of union being the same praiseworthy aims and the same important interests, we appeal to all who were heretofore subscribers to the "American Farmer" and the "Rural Register," to forward us not only their own names but also those of their neighbours in support of our new enterprise.

## ELEMENTS OF LANDSCAPE GARDENING.

## Number One.

## FRONT LOTS OF COTTAGES.

Every intelligent man who makes the country his residence ought to know something of the simpler elements of landscape gardening. It is a delightful pursuit of itself, and, whilst it fosters the love of home and its belongings, it gives to every rural habitation—whether it be villa, farm house, or the humblest cottage—that air of picturesque neatness which, in but too many instances, men of taste and cultivation find, in our land, to be sadly wanting.

However small the enclosure may be that surrounds the dwelling, it is susceptible of sufficient adornment, by a proper arrangement of trees and flowering shrubs, to render it not only pleasing to the eye, but a constant source of attraction to the members of the household. On a larger area, of course, much more may be accomplished in the way of ornament and variety; but the same leading principles must necessarily govern the improver whether he be wealthy or otherwise.

We propose to consider, first of all, what shall be done with the limited space allotted to the country cottage. We do not, of course, refer to those suburban structures which go by that name, nor to the cottage ornée which constitutes, not unfrequently, the summer residence of city merchants and professional men, whose circumstances admit of so pleasant and health invigorating a change. Of these more ambitious structures and their surroundings we shall speak hereafter. Our business, at this time, is with the country cottage, such as is usually found on the borders of farms, or is situated apart from the main street in the lesser towns and in straggling villages. We shall say nothing here of the dwelling itself, or of the manner in which its appearance may be readily improved at a very small cost. This subject will be discussed, from time to time, in a series of articles, the first of which will be found elsewhere in the present number of *THE FARMER*. We will suppose the lot on which the cottage is built to contain half an acre. It is rarely less; it is much oftener of larger dimensions. We assume also that it is on the main road, or on a lane leading to it, and that the cottage itself, if properly placed, stands at some distance back on the lot, having about one-third of the lot between it and the road or lane. It is this space and a reserve of a few yards in the rear of the cottage, which we wish to see improved. How shall this be done? Ordinarily, from the entrance gate to the house there is a straight dirt path with ragged edges; a frowsy looking grass plot trodden bare in spots, and invariably burnt almost to a crisp un-

der the scorching sun in July and August. There is, perhaps, a tree or two; a snow ball bush; a scented shrub, and a few lilacs. If there are any flowers they consist, usually, of tufts of daffodils; some tall hollyhocks and sunflowers, and, for autumn bloom, a scattering of purple plox and yellow and white chrysanthemums. Sometimes, and we fear, much oftener, there is nothing at all but the bare grass, a tree or two, and a few forlorn looking shrubs. Now let us see how this untidy and neglected front lot can be changed at the expense of a few dollars and a little labour. First of all, if spade labour is too tedious and expensive, we would manure the lot thoroughly, plough it deeply, and cross plough it—running the plough twice over, on each occasion, in the same furrow. All this can be done in a single day where the area is but a sixth of an acre, and can be done well. We would next break up all clods, rake the surface well, and pick off all the loose stone—throwing them into heaps. The walks are now to be laid off. That which leads to the house should be slightly curved—somewhat in the form of the letter S, elongated. There should also be another walk branching off from the main one near the entrance gate, extending along the road front and traversing the sides of the fence until it unites with the main walk again near the house, and there leads off once more to the kitchen in the rear and the garden beyond. Between the boundary walk and the fence there should be left a border for flowers and shrubbery. It should be of irregular shape, following the curvatures of the walk and varying in breadth from six to ten feet. These walks, thus laid off, should be dug out to the depth of at least four inches—six would be better—and the soil scattered over the adjacent ground. They should then be hand packed with the loose stone which has been gathered from the ploughed lot, and when this is done should be blinded over either with gravel or rotten rock. We would now plant, close to the fence and all round it, a belt of evergreens—cedars and pines if nothing better can be had—and we would carry the same belt, but more thickly and irregularly, to both sides of the house and a little to the rear of it, as a screen to the kitchen and garden, and as a protection from winter winds. These latter masses we would, however, intersperse with a few flowering locusts and laburnums towards the centre, and, on the outer edge, near the walk, we would intermix with the evergreens such flowering shrubs as are easiest to be had. The lilac, for instance; the sweet scented shrub; the purple magnolia; the flowering currant; the white fringe tree; the snow ball and the mock orange. If to these are added the pink mezereon and the fragrant clethra, some one or more of these shrubs will be in bloom from April until August.



Turning now to the main walk, we would here make an effort to ornament it with a few of the superior sort of evergreens—say a dozen or more—but chiefly the Norway Spruce and the Balsam Fir, as they retain their rich green colour in the depth of winter. These we would mass at the *curves of the walks*, planting here and there a single evergreen to connect with the masses, and filling up the interspaces with flowering shrubs of the kinds already mentioned. Small irregular flower beds containing only petunias and verbenas—each bed of a single colour and in contrast with the next—should decorate the edges of the walks, and finally, we would literally bury the front of the cottage—the windows excepted—in one glorious mass of everblooming Roses and Chinese Honeysuckles. Now let the open spaces of the lot be seeded down to white clover and lawn grass, and but a few years will elapse before the effect of these simple and inexpensive arrangements will be to make the little homestead as charmingly attractive as it was previously forbidding.

**EFFECTS OF DRAINAGE.**—All the rain that falls must be carried away by natural or artificial drainage, or, having thoroughly saturated the soil on which it falls, be left upon the surface to be carried away by evaporation. Now every gallon of water thus carried off by evaporation requires as much heat as would raise five and a half gallons from the freezing to the boiling point. Without going to extreme cases, the great effects of heat thus lost upon vegetation cannot fail to be striking, and it has frequently been found that the soil of a field well drained is ten to fifteen degrees higher in temperature than that of fields not drained, though in every other respect the circumstances connected with the soils were similar. The effects of this on growing crops is very marked, drained soil having altogether the advantage. Remember that more than five times as much heat leaves the soil in one gallon of water evaporating as would raise a gallon from the freezing to the boiling point.

**PLANTS PRESERVED FROM COLD BY ICE.**—To preserve plants from the frost, it suffices to surround them with some vessels of water. The latter will freeze, and in the act of passing into the solid state set free a quantity of caloric sufficient to prevent the temperature of neighboring objects from falling below the freezing point. Water while freezing gives up 75 to 80 per cent of heat, and this is the secret of Lecop's system. Of course, no draft must be allowed to interfere.

A FRENCH law, which ought to be in force in this country, authorizes a farmer to sue his neighbour who neglects to eradicate the thistles upon his land at the proper season.

## HINTS ON COUNTRY HOUSES.

### Number One.

#### The Site of the Dwelling and its Surroundings.

It is only within the past twenty years that much attention has been given in this country to the subject of country houses and their fitting structure and adornment. Since that period however, the taste of our people has been gradually improving, and now, instead of those blots on the landscape, bare bleak houses on bare bleak knolls, we meet, here and there, scattered through the rural districts, dwellings that are models of taste and beauty and whose surroundings indicate that the skill of the landscape gardener in the simpler elements of his art has not been invoked in vain. The first of all blessings, whether in town or country, is robust health. A rich soil, teeming garners, and all the accessories of wealth, count for nothing in comparison. What is the value of all that a man has, if he cannot enjoy it? A broken constitution is no compensation for full barns and money in bank. Health then, is the first of all earthly considerations, as a moral or religious life, industrious habits combined with apt intelligence and governed by prudence and economy, reflect the highest honor on the individual. Now, except in cases of hereditary infirmity, the condition of a man's health depends very much upon where he lives and how he lives. If he select for his dwelling place a damp and miasmatic region, he must necessarily suffer the penalty of his folly. Blue mass and quinine are well enough in their way, and are, undoubtedly, useful agents in relieving the diseases common to such districts; but it is much better for people to live where neither blue mass nor quinine are required. This, of course, cannot always be accomplished; but even in those cases much may be done to qualify the effects of the deleterious agencies to which malarious localities are exposed.

It would be difficult, at this late day, to understand how it came to pass that our forefathers, when they raised their first rude cabins in the wilderness, so rarely paid any very serious attention to the healthiness or unhealthiness of the site. With them the quality of the soil seems to have overpowered every other consideration. For a few extra inches of fertile loam they hazarded health and even life itself; sought out a convenient spring of water; built their log cabin near it, and entered upon their possessions to struggle as best they might with ague and fever, engorged livers, rheumatic pains, and all the ills that torture the body when men set the laws of health at defiance and are willing to hope all things and endure all things for the sake of getting rich a little faster than their neighbours. Now, the short-sightedness of such a policy appears in this—

there is scarcely throughout the country a single farm or plantation of any extent, that does not afford a choice of situations for the dwelling house, and where, with a little care and management, the health of the household may be comparatively protected. A knoll for instance, however slightly elevated above the surrounding fields, is a much better position for a house than a flatter surface, because on the former the subsoil is generally drier and the drainage can be made more perfect. There are other advantages also to which we shall presently refer.

In our climate, semi-tropical in summer and semi-arctic in winter, the choice of a site upon which to build a house in the country must necessarily be governed by a variety of circumstances; but the ruling principle, here, as elsewhere, is not to build at hazard, but to select the best position that the place affords. What then are the primary rules to be observed? In the first place, the soil and subsoil of the spot selected should be examined. If these are light and dry, and are sufficiently elevated to carry freely off the surplus water of heavy rains, the place is well selected so far; for no person who values the health of his family will ever build a house on a cold site with a damp retentive subsoil. However well drained the surface may be, the air, in such situations, is commonly raw and chill, and consequently hurtful, in a greater or less degree.

The next point to be considered is shelter. In a rolling or broken country a person in search of the picturesque is very apt to be tempted to select a high situation for the sake of the fine distant view. But, however desirable this may be in some respects and in the summer season, a house exposed to high wind and cold draughts can never be made comfortable in winter. If there should happen to be on the north and northwest hills still higher than that on which the house is built, or even a close belt of woodland, the shelter thus obtained would mitigate, to a considerable extent, the principal objection to an elevated situation. The best position of all is, nevertheless, on ground sufficiently high to command a view of the surrounding country broken up by intervening trees into a succession of pictures; for an open landscape which the eye takes in at a single glance soon grows monotonous and wearisome.

In low lying lands, as we have already stated, the house should be built on the most elevated spot within the boundaries of the property; whilst, in valleys, it should occupy, whenever that is possible—one of the moderately elevated spurs of the surrounding hills.

The best aspect for a dwelling house is to the south or southeast, with the natural protection of hills or woods on the north and northwest. Where such protection is not available recourse must be

had to planting, and, in this case, evergreens should be liberally used, as they not only serve to break most effectually the force of the wind, but also give, by their perpetual foliage, a summer aspect to a winter scene.

### COMPOSTS.

Animal manures combined with earths, and rendered fine by decomposition, are called composts; and when the preparation of them is well managed, a great increase in both the quantity and quality of manures on a farm may be obtained. Where the dung of the stables or the barnyard, is allowed to ferment before it is placed in the field, or in situations, where it is uncovered or unmixed with some substance to absorb and retain the gases generated, a great loss to the farmer of nutritive matter certainly ensues. To avoid this, and provide a supply of fine manure indispensable in gardening, and some other farm operations, it is found an excellent plan to mix the vegetable matter of swamps, the muck of drains, wash of roads, peats, &c. in heaps with the unfermented manure, and in this way the insoluble part of the vegetable matter used is prepared to become the food of plants, while they at the same time serve to prevent the escape of matter from the fermented mass. In preparing these heaps, the manure and the muck, or the earth, (for even arable earth will be better as an absorbent mixed with the fermenting dung than nothing,) is placed in layers until the requisite height is obtained, when it is left to ferment and decompose. If the heat rises to much over 100°, the pile should be shoveled over, and this incorporation of the materials will check the too rapid fermentation, and promote the fineness and quality of the compost. Another mode of making compost, and perhaps the best, where it can be adopted, and there is no fine manure required, is to carry on the field the proceeds of the stables and yards, spread them, and turn them thoroughly under with as little delay as possible. A compost is also made by spreading the yard to the depth of ten or twelve inches, with swamp muck, or other earth containing insoluble vegetable matter, and allowing this to receive the wash of the stables, manures, &c. As the straw, hay, dung, urine, and other matters, will, in the course of the winter, become, by the trampling of beasts, thoroughly incorporated with the added earth, the volatile salts which are so apt to escape, as well as those which being soluble are washed away by the rains, are retained, and the quantity of manure is most beneficially augmented. In this way on some farms where but comparatively small numbers of stock are kept, from 500 to 1000 loads of manure are annually obtained, and the fertility of the farm rapidly increased.



## Our Agricultural Calendar.

### Farm Work for January.

During the intensely cold weather which usually occurs at mid-winter in this latitude, the work on the Farm consists altogether of matters relating to the care of the stock and the comfort of the household. Farm Implements are to be examined and repaired. Gates may be constructed under cover; posts hewn and bored, and fence rails pointed, to be ready for use whenever and wherever they may be wanted. Wood has also to be cut up and stored for future use. The feeding, bedding and watering of cattle, will also claim, during the inclement season, an extra share of attention, whilst the spare hours within doors may be well spent in arranging for the future crops. The work then of the most importance to be done during this month is as follows:

#### FIREWOOD.

A good supply of fuel for the winter months, well seasoned and always at command, is essential to the comfort of every well regulated household. If therefore an ample store has not already been laid in, take advantage of every clear dry bracing day, not only to haul a quantity sufficient for the wants of the family but to cut it in lengths and store it away under cover for future use.

#### WET MEADOWS.

If the frost has not penetrated the soil to a very great depth, draining may still be carried on to advantage, by cutting through the frozen earth and the masses of interlacing roots with an axe. Where the soil abounds in roots and the land is naturally boggy this work may be performed in seasonable weather to advantage, as it will, if only partially completed, materially assist in draining the land preparatory to finishing the operation in the spring.

#### WINTER PLOUGHING.

It is not often that ploughing can be performed at any time during this month. But, if it should happen to be practicable, all stiff soils are benefited by being broken up and exposed to the frosts of winter. Particular care, however, should be taken that they are not ploughed when wet.

#### WATER FURROWS.

Examine the water furrows in your grain fields every week or so, and wherever there exist any obstructions to the free passage of the water remove them forthwith, or the grain in such places will be winter killed.

#### WINTER FEEDING OF STOCK.

It is a common practise to feed stock through the winter on the coarsest provender; but if this has so little nutriment in it that the horses or cattle fall off

in flesh it is not more unwise in point of economy than it is injudicious in point of health. A sprinkling of corn and cob meal added to the cut fodder—for all the hay and fodder should be cut up—would tend to keep the animals in good condition, and would well repay the additional outlay. Horses and milch cows deserve generous treatment, the former not only for the work they have already performed, but also for that which they are expected to do in the spring, and if the latter are stinted in the quality of their food, they will undoubtedly retaliate by yielding a smaller quantity of milk.—When milch cows are warmly housed and are furnished, in addition to cut fodder, with a quart of corn meal a day, and half a bushel of turnips or sugar beets, the value of the dairy products will be increased at least to the extent of the extra cost of the feed. Even if they are dry they will return the difference in increase of flesh.

To keep sheep as they ought to be kept they should always be provided with warm sheds to which they can resort in inclement weather. Exposure to winter storms, moreover, very sensibly diminishes the weight and fineness of the fleece.—Each sheep requires for its daily supply of food from two and a half to three and a half pounds of good hay or nutritious fodder, which may be occasionally exchanged for an equivalent amount of oat, rye, or barley straw. If, in addition to the above, they are now and then furnished with a feed of roots, and are kept well supplied with rock salt they will be improved in health and the quantity of wool will be increased.

#### BREEDING SOWS AND STORE PIGS.

Keep the pens well supplied with straw leaves and rough materials for manure. Let their sleeping apartments be kept dry and warm. Feed them liberally but not to excess—furnish them with charcoal occasionally, and clean out the pens frequently.

#### POULTRY.

Those who require that poultry should supply the table with eggs during the winter must feed their fowls accordingly. The poultry house should be well built and well defended from the blasts of winter; and in addition to the usual quantity of grain they should be furnished with a moderate supply of meat chopped up very fine. The poultry yard should be protected against the northeast winds, by a wall or close board fence, and should be supplied with a small heap of lime or mortar, or broken oyster shells. The fowls should have access to pure water at all times, and also heaps of sand or ashes where they may dust themselves. The poultry house should be kept very clean. The floor after being scraped and swept should be sprinkled over with dry sand and a small quantity of plaster.

## COMPOST HEAPS.

There is too little attention given by farmers generally to the formation of compost heaps: yet they are easily made and will return in the increased products of the farm a handsome profit on the labour bestowed on them. The best method of constructing a compost heap is as follows: Collect in the vicinity of the manure pile as many cart loads as can be obtained of swamp muck, woods mould, leaves, the turf of headlands, and any other kinds of rough material. Mark out a space upon which the compost heap is to be built and within these lines spread first of all a layer six inches deep of the crude materials to be composted. Cover this evenly with ten inches of barn-yard manure. Now add another layer of woods earth, swamp muck or leaves six inches thick, then four inches of manure—follow this with six inches more of the coarser substances—then another layer of two inches of manure. Top off with six inches of raw material.—After some weeks a brisk fermentation will take place when the heap should be turned and well mixed.

### Garden Work for January.

There is nothing to be done in the open garden during the month of January. Those however, who desire to raise early vegetables will make their preparations for this purpose. Where there are hot bed frames in use, long manure should be kept under shelter until it is wanted for use towards the close of the month. Fine sifted earth, composed of woods earth and sand in equal proportions, should also be got ready and stored away in a dry place until it is wanted. When the hot bed is made and fermentation has set in the earth should be spread over the manure to the depth of at least four inches. About the last week of the month and from that to the middle of February, cabbage seed of various kinds may be sown in the bed and also the seed of early scarlet short-top radishes. If there is space to spare, water the bed frequently, and protect the frames carefully, by covering with mats.

WHO ARE THE HAPPY?—Lord Byron said: "The mechanics and workmen who can maintain their families, are, in my opinion, the happiest body of men. Poverty is wretchedness, but even poverty is, perhaps, to be preferred to the heartless unmeaning dissipation of the higher orders." Another author says: "I have no propensity to envy any one least of all, the rich and great; but if I were disposed to this weakness, the subject of my envy would be a healthy young man, in full possession of his strength and faculties, going forth in the morning to work for his wife and children or bringing them home his wages at night."

## THE PLOW AND ITS USES.

In no one thing has the striking advance of what may be termed the mechanics of agriculture, or the manufacture of farming implements, within the last forty years, been more fully shown, than in that most important article of husbandry, the plow.—When we compare the present beautiful, light, and yet strong, plows, in general use, with the clumsy, heavy, ill-constructed implements used thirty or forty years since, it is impossible to deny, that in this respect at least, a great improvement in the means of good farming has been effected. Some forty years since, a gentleman of Massachusetts, convinced of the inefficiency of the common plow, ordered from England a new plow which was highly spoken of, but on its arrival, found it such a huge, clumsy, heavy combination of wood and iron, that, after various unsuccessful attempts at use, he was obliged to lay it by, it requiring more team and hands to manage it, than even the ordinary Bull plow of New England, to which he had been accustomed. Wood, about this time, invented the cast iron plow, and this discovery, in the hands of skilful and scientific men and good mechanics, has effected a total revolution in the qualities and construction of that implement.

It is somewhat singular that, to the celebrated author of the Declaration of Independence, this country also owes the first theory of the plow, formed on correct philosophical and mathematical principles. In order to test the correctness of his theory, at the suggestion of Jefferson, Mr. Smith of Pennsylvania, in 1803, made the first cast iron mold-board, as a substitute for the wooden one hitherto used. It succeeded, and this had a direct tendency to do away the awkward wedge-like form of the old plow; and this formed the first step, which has led to the simple yet beautiful application of power, shown in the present improved cast iron plow. The land side and the point, were successively added, thus securing ease of working, with great strength and durability. We well remember the first cast iron plow that fell under our notice, (and it was one of Wood's earliest invention,) and so associated with brittleness and fragility were all our ideas of cast iron, that we should not have deemed it worth an hour's purchase in any field, other than the cleanest and best. Experience, however, showed the fallacy of such impressions; patent after patent was taken out for what were deemed improvements, and each new plow received a fair share of public favor and patronage.

It would be somewhat amusing, and certainly instructive, to trace the history of this implement from the earliest notice it has received, or its earliest delineations on the coins and sculptures of antiquity,



down to the present day. The plow of the ancients and the teams used, were of the simplest kind. The top of a tree, of which one branch constituted the handle; an opposite one, shortened and sharpened, was the plow proper; and the main stem, trimmed of its superfluous branches, and cut off at the proper length, constituted the beam. Asses or heifers formed the teams, when society had so far advanced as to substitute animal for human labor. Before that, men, or more frequently women, drew as well as held the plow; and so slow were changes on domestic matters in the East, that Pliny speaks of seeing, in Africa, fields that produced most luxuriantly, worked by an implement like the above, to which was yoked an ass and an old woman. In some parts of the Eastern world, the plow still used, is not superior to the primitive one, though a piece of iron is sometimes tied to the under branch that penetrates the ground, and bullocks are in some places used to draw it; the plow used by the Polish peasantry is of this kind, and in Africa, a sharpened stick, or a wooden paddle, constitutes the implement used for stirring the earth preparatory to a crop.

We do not intimate that the plow, even the best kind, can be considered as having reached its limits of perfection. With that implement, as with other things, one decided improvement serves only to suggest another. The changes in material pointed to changes in structure; and instead of the blunt, wedge-like form of the old plow, a tapering, lifting form has been given, which, penetrating the earth easily, and reversing it readily, dispenses with much of the force formerly required to move it, while at the same time the work is done in a manner to which the old plow could make but faint approaches. The effect of early habits is still to be seen in our plows, though not to the extent it formerly was. In the early settlement of any wooded country, knolls made by the turning up of the former forest trees, will abound, giving an unevenness to the surface, requiring several plowings to remove. On such lands, none but plows with short beams and nearly upright handles, can be used to advantage; and such is the character of the plow in all new countries. Plows of this description do not run as easy, and require more labor in the holding, than those made with larger beams, and a corresponding increase in the length of the share and point. A well constructed plow has its under surface running parallel with the surface of the soil, no matter what may be the depth plowed; but when constructed in such a way that the plow is continually on its heel, or its point, the plowman finds hard work, and the work itself must be imperfectly performed. Every one who plows, is aware that on the same soils, one plow will run so true and steady as to require scarce

an effort to guide it, while another demands constant attention and effort; and he also knows that in most cases, the easiest running plow will be the one with the longest exposed surface, and handles of the greatest inclination; and the reasons for this are so evident, as not to require elucidation.

Farmers have been considerably divided in opinion on two points connected with plows, or rather with plowing; one of these regarding the manner in which the furrow slice should be turned over; and the other, the depth to which land should be plowed. Some have contended that the furrow slice should never be laid flat, but always in such an inclined position, that the edge of one slice should just rest on the next one, leaving under the edge so raised, a vacancy nearly as deep as the thickness of the furrow slice. This, it is contended, is advantageous, by hastening decomposition, and by allowing water to pass freely off without injury to young plants. Other farmers maintain as strenuously that the furrow slice should in all cases be laid perfectly flat, or reversed in such a manner that a field after plowing should be as level as before, the plow simply reversing the surface of the slice. In this, as in a majority of controverted points, our experience and observation leads us to conclude that both sides are partly right, and both partly wrong. We have found that, if on lands strong and with a tenacious or impervious subsoil, which retained for some time what water fell upon it, the furrow slice was slightly lapped, so as to leave a space below, young plants suffered less from a wet season, or an undue accumulation of water, than they would if the furrow slice was fully inverted, and the surface made smooth and even. On the contrary, we have been led to believe that on a light soil, or one inclined to be dry or porous, it was better to invert the surface completely, and by rolling, render the surface smooth, and its particles as compact as possible. A surface so treated, will retain its moisture longer than if left in a state more loose and friable, and the conducting power will be increased by the particles being brought more closely in contact. Let the farmer, then, whose subsoil is impermeable to water, lay his furrows as dipping as he pleases; the more space below, the better for him; but on a light porous soil, lay the surface flat, and make it as dense as it well can be. The benefit, which compressing sandy soils confers, is well understood in Norfolk, in England, where the treading of the sheep in feeding the turnips in the field, is considered not the least beneficial part of the culture required for the production of wheat.

Nearly the same remarks may be applied to the other controverted point, viz: that which relates to the depth of plowing. The propriety or impropriety of deep plowing must be determined by the soil

itself; by its condition, in reference to a supply of vegetable matter in the soil, and the depth to which it has been formerly plowed. Where the stratum of fertile soil is thin, and the subsoil, no matter from what cause, incapable of promoting vegetation, it is bad policy to bring this infertile subsoil to the surface, as a stratum in which seeds are to germinate. And where the soil is permeable to the depth of twelve or eighteen inches, or as low as the plow can penetrate, and is filled with fertilizing materials, deposited by the processes of nature, or by manure applied to the surface in cultivation, then the plow may run deep without fear of injury to the present crop, and the certainty of benefit to the future ones. We think the true method of rendering any soil deep and fertile, is to plow no deeper, and bring up no more of the infertile earth at a time to the surface, than can be thoroughly corrected by manures, to be incorporated with it, and thus made friable and productive. At each successive plowing, if this course is followed, the soil will be gradually deepened and rendered productive to any desired depth. By pursuing this course of manuring and plowing, Judge Powell rendered his soils fertile to the depth of fourteen inches, and where the roots of plants have this depth of good earth to range in and seek their food, the farmer can hardly fail of securing first rate crops. Every part of a soil so prepared, is fit for the germination of seeds to the lowest depth to which the plow can reach; and the more thorough the plowing is given, the greater will be the surface exposed to the benefits of aëration, or the ameliorating influences of the atmosphere. One of the greatest differences between the old and the new husbandry, depends on this question of plowing.—In the old mode, the plow was used year after year to the same depth, and the manure applied with reference to the crop solely, while the improvement of the soil was wholly left out of sight. As a natural consequence, "there was no depth of soil," and when manure failed, the fertility of the land was gone, with scarcely a possibility of renovating under such a process. In the new husbandry, the permanent improvement of the soil, by gradual manuring and deepening, is kept steadily in view; and hence the accumulation and use of manures has received an additional importance. The garden is usually far the most fertile part of the farm, and this is brought about by the gradual incorporation of manures with the subsoil raised at each successive plowing, until the requisite depth and fertility is gained. On lands long plowed to a uniform depth, as they were under the old system, the pressure of the plow on the same surface gradually formed an impenetrable strata, thus forming a fatal obstruction to the roots of plants, where it did not naturally exist. In England, on soils inclining to clay,

and which have been under the plow occasionally, or almost perpetually for centuries, this impermeable *pan* is common, and one of the most decided advantages found to result from the subsoil plow, is the breaking up and demolition of this artificial obstruction to the spread and depth of the roots of plants. On the old cultivated fields of New England, the same difficulty exists more or less, and can be removed, and the soil rendered fertile by the same means so successful abroad.

The too frequent plowing of land is not to be recommended in any case, and unless absolutely required to destroy foul weeds, it should receive no further moving than is requisite to fit it for a crop. The great mistake of Tull was, that plowing or pulverization would supersede the use of manuring.—But experience shows, what indeed philosophy inculcates, that beyond a certain point, plowing is injurious; and that, though essential benefits are derived to the soil from the action of atmospheric agents, manuring in some form, is indispensable to successful farming. It may be said that an application of manure should take place every time land is plowed and cropped. On land that has been brought to a high state of fertility, the decomposition of the rich sward will usually prove a sufficient dressing for a single crop; but for a repetition or rotation of crops, manures cannot be withheld without a certain deterioration of the soil, and a probable lessening of the crop. Plowing and manuring must go together, and without this combination, each will be found defective and incapable of producing such results as are skilfully united. We are therefore disposed to consider every decided improvement in the plow, as a sure indication of progress in agriculture; an evidence that another step in the correction and dissipation of ancient error has been gained; and the way opened and the means provided for still farther and more important advances.

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**ADULTERATED AND SPURIOUS BEVERAGES.**—A London professor lectured recently on adulterations of food. He handed round coffee, which was pronounced excellent, then told the audience that they had been regaled with a mixture of bullock's blood, chicory, sheep's liver, dried and old coffee grouts. He gave them capital porter too, made of spirits of wine, gum arabic and burnt sugar.

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**TO KEEP NEST EGGS FROM FREEZING.**—Every farmer and poulterer knows that nest eggs are very liable to be frozen and spoiled in the spring of the year, and when cracked are eat by the fowls. To prevent this, manufacture a few eggs from lumps of chalk, and while they are secure against freezing, they will be accepted by the fowls as veritable eggs, and prove very durable.



## SOILS.

The soil, strictly speaking, is that part of the earth's surface, in which the elementary earths, such as silex, alumina, lime, &c. by atmospheric contact, and combination with vegetable and animal matter, are changed into a mass fertile, or capable of supporting a profitable vegetation. It is evident, therefore, that in most cases in uncultivated lands, not subject to the deposition of vegetable matter, the depth of soil must be inconsiderable. On lands of a rather porous texture, the soil will be deeper than on those more compact, owing to the greater ease with which the decaying particles of matter penetrate such earth. The depth of soil, and this is a point on which the question of fertility mainly depends, may be considered as depending in the first place on the combination of fertilizing materials with the original earths, by a natural process; and secondly, on the artificial exposure and combination of the earths and fertilizing matters, that take place in cultivation. In a region or on a farm in which the earths are properly proportioned, the soil may be made by skillful management, and very easily, of any required depth; nothing more is necessary than to mingle the proper materials to the desired depth, and the work is done; but such instances are comparatively rare, and in overcoming the obstacles that present themselves to the formation of soil, the aid of science, and the skill of the agriculturist, is most put in requisition.

It is rarely found, that in cultivated lands, the depth of soil exceeds that to which the plow penetrates; and the farmer, and the best rotation of crops, is the one that most effectually deepens and promotes the formation of a soil favorable to vegetation. A good soil cannot be formed or preserved in which water is constantly present near the surface, nor can such a soil exist where the earths are so porous, and possess so little adhesive power, that the fertilizing materials placed upon it, sink by infiltration beyond the reach of the plant. In the first case the remedy is draining, thorough draining. Without this no effectual amelioration can be accomplished, and when this is done, exposing the earth to atmospheric agency, or supplying the materials in which it may be defective, will make a fertile soil as low as it is moved. In the second case, where there is too little adhesion, the way to convert the earths into soil, is to add such substances as possess this power, and of these clay is the most effectual. In order to determine the precise proportions of the earths in any soil, analysis is requisite; but every farmer can determine whether his soil is too wet, tenacious, or too light, whether sand or clay predominates, and it is on the relative proportions of these two substances, that the easy or difficult cultivation of a farm, or the conversion of the surface earth into soil, depends.

If we suppose that soils suitable for the nourishment and growth of plants, are not usually found lower than the earth is stirred in the processes of cultivation, its average depth cannot be considered more than six inches; as it is believed that more plowing falls short of that depth than exceeds it, and trenching or spading has not been introduced into this country, as a part of field cultivation.—Some of our best farmers have, it is true, by increasing the depth at each plowing, brought the depth of soil fit for the support of plants, as low as twelve or fifteen inches, and their crops show the immense advantages derived from the extra range thus given to the roots of the vegetables grown. Parts of Belgium and Holland, which, half a century since, were wastes of drifting white sand, are now the most fertile lands in Europe. The clay necessary to produce adhesion and retain moisture, was found immediately below the sand, and was brought to the surface by spading. A course of cropping, calculated to promote fertility in such soils, has been adopted, and with astonishing effects. In some districts, however, where the sands are unusually light, at the end of each course of cropping, or once in five or six years, spading is again resorted to, though by cultivation, this becomes less necessary, and may in all cases eventually be dispensed with.

A few calculations may assist us in forming an estimate of the quantity of the earths, or vegetable matter existing in the soil, and the quantities required to render it fertile, when the deficiency is ascertained. Dr. Jackson, gives the following example of calculating the weight of a soil, and of its manure.

"Let the specific gravity of a soil be 1,277—water being 1: then one cubic foot of water weighing 1,000 ounces, a cubic foot of soil would weigh 1,277 ounces, or 79,187 lbs. An acre of land contains 43,560 square feet area, and if we estimate the cubic foot of soil as weighing 79,187 pounds, or half a cubic foot, at 39,152 pounds nearly, supposing we wish to calculate the weight of an acre of the soil for the depth of six inches, the usual depth of tillage, we have a weight of 1,719,620 lbs. or 859 tons nearly, as the weight of an acre of soil to the depth of half a foot. If the soil on analysis contain  $9\frac{1}{2}$  per cent of vegetable matter, 3.2 per cent being soluble, and 6.3 unsoluble, it would give  $81\frac{1}{2}$  tons of vegetable matter to an acre of six inches in depth." And the Dr. adds, that, in a similar way, by estimating the per cent of lime, silex, clay, &c. in any soil, the weight per acre may be easily ascertained.

If we, with Dr. Jackson, suppose every acre of land to the depth of six inches, as weighing 800 tons, (this is the soil exclusive of stones,) then an inch of this soil will weigh 133 tons nearly; or one ton and one third of a ton would be required to cover



an acre to the depth of the one hundredth part of an inch. If we suppose a soil to contain 60 per cent of silex, or sand, twenty-five per cent of alumine, five per cent. of carbonate of lime, and ten per cent of vegetable matter, soluble and insoluble, then the quantities in tons in every acre of land, to the depth of six inches, of these several substances, would be as follows:

Silex, or sand,.....	480 tons.
Alumine,.....	200 "
Carbonate of lime,.....	40 "
Vegetable matter, &c.,.....	80 "
	800

Repeated analysis shows that a soil constituted in about the above proportions will be a fertile one, and when the quantity in tons of any particular earth in a soil is known, the tons required per acre to raise it to any required standard, can be ascertained at once. Thus, if eighty tons of vegetable matter is requisite to form fertile soil, and analysis shows that it does not contain more than from ten to twenty tons per acre, there can be no difficulty in determining the nature of the substances to be added, or the quantity required. It is very necessary that the amount of vegetable and animal matter in a soil should be understood, as many farmers, if their conduct be allowed to testify, seem to suppose that on an exhausted soil, the addition of ten or twenty tons of manure, is an abundant supply.—The same remarks will hold good as to the addition of earths. Thus, on a soil containing eighty per cent of silex in the six inches of soil, twenty loads or tons of clay, mixed with the sand, will add such a per cent to the mass as to render it adhesive and productive. The application of a ton of lime to an acre, though only equal to one-fortieth of that in a good soil, will in most cases, cause a material change in the quality and action of the soil. The quantity of gypsum in soils is still less than that of lime, and a less quantity in proportion to the whole mass, is found to be efficient.

How beautiful and exalting are the following sentiments of De Witt Clinton: "Pleasure is a shadow, wealth is vanity, and power a pageant; but knowledge is ecstatic in enjoyment, perennial in fame, unlimited in space, and infinite in duration. In the performance of its sacred offices it fears no danger, spares no expense, omits no exertion. It scales the mountain, looks into the volcano, dives into the ocean, perforates the earth, encircles the globe, explores the sea and land, contemplates the distance, ascends the sublime. No place is too remote for its reach."

LOUIS NAPOLEON has ordered twelve light steam ploughs for the imperial farms in France. They will range from two to five horse-power.

## FIELD CULTURE OF THE ONION.

An Ohio correspondent of the Country Gentleman and Cultivator, having asked for a "good article" on the culture of the onion, we applied to the Hon. John W. Proctor of Essex county, Mass., who has kindly furnished us the following, which we think answers our correspondent's requirements:

MESSRS. TUCKER & SON—I am most happy to appropriate a part of this memorable day, in answering your inquiries about the culture of the ONION.

You are right in supposing this culture to be extensively carried on in this vicinity. Until within the last three years, there have been no crops grown that paid so well, and even the last year, there were many acres that came within my observation, that yielded a net product of one hundred dollars and more. This, when it is considered that a laboring man, with the aid of his own family, boys and girls, can conveniently take care of five acres and more, will prove this to be no mean business, although the odor thereof may not be of the most agreeable character.

Success in this culture demands the most persevering industry and watchful care. No lazy man can succeed in it. Any land that will yield a good crop of Indian corn—say fifty bushels to the acre—can be made to produce onions. There are several points in the culture essential to be regarded.

1. The soil must be thoroughly prepared. Nothing less than the best garden culture will fit it for growing the onion. Although the plant matures chiefly on the surface, still its delicate fibres penetrate to the depth of a foot or more, in search of sustenance and moisture; and therefore every facility to aid their ready penetration should be afforded—not only aid to penetrate, but vigilance to preserve from harm. Nothing can be more injurious to the growth of the onion, than the rude fracture of these fibres. Hence weeds should have no place on onion grounds. I have frequently known a loss of full half the crop by suffering them to remain a week too long without eradicating the weeds. When the injury is once done, it cannot be repaired. The delicate sensitiveness of the onion admits no atonement for a wanton injury.

A good crop may not be expected without unremitting vigilance and care. Care from the beginning to the end—care in the preparation of the ground—care in the selection and growing of the seeds—care in depositing—care in eradicating the weeds—care in securing the crop, and care in taking it to market, under circumstances the most favorable.

First and foremost, it is necessary to be vigilant in planting the seed early. Those who are up and doing, are sure to find their reward in growing the onion. There are so many embarrassments in the

way of their successful growth, in this cold and changeable climate, that no fair day after April commences, should be permitted to pass without something being done on the field for onions, either in fitting the ground, fining the manure, or in distributing it upon the surface, so that it will not be in the way of the even distribution of the seed.—The seed is distributed by machines, in rows fourteen inches apart, as straight as they can be made, to facilitate the safe movement of the onion weeder, which passes between the rows so gauged as to cut the weeds without disturbing the plants. Whatever weeds remain uncut, are carefully removed by the fingers of boys or girls, who pass on their knees between the rows. No one who is afraid of soiling their knees or their fingers need engage in the culture of the onion. Nothing short of a close embrace will command the sympathy or affection of this plant.

I have spoken of thorough manuring, and rarely have I known a crop to be injured by a too free application of manure. Ordinarily, six, eight or ten cords of good, well fined manure is applied annually to each acre, and such application I have known successfully for twenty years. Unlike most other crops, the onion continues to grow well after itself for many years in succession. I know no limit in this respect.

Any good manure is good for onions. None better than that made in the barn-yard, where stock is generously fed, and where the shovel is faithfully used in fining it. Fining of the manure and pulverization of the soil are essential prerequisites to the growing of the onion.

PLANTS IN ROOMS.—The reason why plants fade so soon, is because due attention is not paid to them. The mere supplying with water is not sufficient.—The leaves should be kept perfectly clean. "If as much washing were bestowed, in London," says Dr. Lindley, "upon a pot-plant as upon a lap-dog, the one would remain in as good condition as the other. The reasons are obvious. Plants breathe by their leaves: and if their surface is clogged by dirt, of whatever kind, their breathing is impeded or prevented. Plants perspire by their leaves; and dirt prevents their perspiration. Plants feed by their leaves; and dirt prevents their feeding. So that breathing, perspiration, and food, are fatally interrupted by the accumulation of foreign matters upon leaves. Let any one, after reading this, cast an eye upon the state of plants in sitting rooms or well-kept greenhouses; let him draw a white handkerchief over the surface of such plants, or a piece of smooth white leather, if he desires to know how far they are from being as clean as their nature requires."

### PRESERVING SWEET POTATOES.

The following mode of preserving sweet potatoes is given in the last report of the Agricultural Department at Washington, by J. C. Thompson, of Tompkinsville, Staten Island:

"For winter use, after the first frost select a dry, clear day. Cut the vines with a scythe, leaving the stem to which the potatoes are attached, three or four inches long, to lift them by. The vines are readily eaten by cattle. Use a fork for raising the potatoes; lift them by the stem, and lay them on the ridge to dry. In a few hours they will be ready to pack. Prepare plenty of dry cut straw (old straw is preferable), and take straw and barrels or boxes to the field. Select the best potatoes, handling them carefully without bruising them. Put a layer of straw at the bottom of the barrel and then alternate layers of potatoes and straw until it is filled. The potatoes should be placed close to each other, one at a time, and handled as carefully as eggs. The barrels are then to be moved to a dry room or cellar, where there is no frost. If they are placed in a cellar they must be raised from the floor, and must not touch the wall. Keeping warm and dry is the secret of their preservation. They will keep six or eight months and improve in quality. From one plot of ground 39 by 100 feet, I gathered, in October last, 43½ bushels."

WINTER SHOES.—Hall's Journal of Health gives the following sensible advice: Like the gnarled oak that has withstood the storms and thunderbolts of centuries, man himself begins to die at the extremities. Keep the feet dry and warm, and we may snap our fingers in joyous triumph at disease and the doctors. Put on two pairs of thick woollen stockings, but keep this to yourself; go to some honest son of St. Crispin, and have your measure taken for a stout pair of Winter boots or shoes; shoes are better for ordinary every-day use, as they allow the ready escape of the odors, while they strengthen the ankles, accustoming them to depend on themselves. A very slight accident is sufficient to cause a sprained ankle to an habitual boot-wearer. Besides, a shoe compresses less, and hence admits of a more vigorous circulation of blood. But wear boots when you ride or travel. Give directions also to have no cork or India-rubber about the shoes, but to place between the layers of the soles, from out to out, a piece of stout hemp or tow-linen, which has been dipped in melted pitch. This is absolutely impervious to water—does not absorb a particle, while we know that cork does and after a while becomes "soggy" and damp for a week. When you put them on the first time, they will feel as "easy as an old shoe," and you may stand on damp places for hours with impunity.



## Live Stock Register.

### STABLES FOR FARM HORSES.

The following on stables is condensed from the *Journal of the Royal Agricultural Society of England*, being part of an able essay on the subject of the breeding and care of horses:

"The stable should not be less than eighteen feet wide, and of such a length as will allow a six-feet standing for each horse, and ten feet high. The horses stand in a single row, and the harness is hung on pegs in the wall behind them. This width admits of thorough ventilation to the stable, without subjecting the horses to draughts. Each standing should be parted off by an upright post reaching from the ground to the ceiling rafter, placed three feet off from the wall at the horse's head. These partitions should be closely boarded up three feet above the manger and hay crib, to prevent them quarrelling about the food, and kicking each other. To each of these posts a bale, eight feet long and one foot eight inches wide, should be hung by a strong chain, to divide the standings, and suspended by another strong chain at the hinder end from the ceiling rafter. Each chain should have a hook and eye within reach, that may be readily unfastened. This arrangement will leave a space of six feet opposite the head of each horse, available for feeding purposes. The manger for corn and chaff may be made two feet six inches long. It should be two feet wide at the top, one foot two inches at the bottom. The hay and straw, which should be cut into six-inch lengths, will require a larger receptacle, which should be three feet six inches long, two feet wide at its upper part, and half that width below.

"At the top of this hay and straw crib, an iron rack with bars six inches apart should be so hung as to open up and fall back against the wall to let the fodder be put in, and then be put down upon it for the horse to eat through. It should be so much smaller than the opening that it can fall down with the fodder as it is consumed, by which means not a particle is wasted. The top of the front and ends should be covered with half-round iron,  $2\frac{1}{2}$  inches wide, screwed on to project over the front outside a quarter of an inch, and three-quarters of an inch inside the manger. This prevents the food being tossed out, and the manger being gnawed. A short post must be put as near the center of the standing as possible to support the manger, into which a large screw ring must be put to let the chain or rope of the headstall pass freely up and down without constant friction. The manger may be three feet six inches from the ground to the top; the hay crib of course the same height.

"The flooring of the standings three feet six inches from the head, should be flat, then with a fall from both sides to the center, where a drain of four inches wide with a removable flat cover fitted to the inside of it, should be placed straight down the standing, with a fall into another larger cross main drain 10 feet 6 inches from the head, so placed as to carry away the urine from all the smaller drains into a tank outside of the stable.

"The ventilation is the most important feature in the construction of the stable; upon it depends the health of the horses, and consequently their usefulness. No stable should be without a constant change of air, and no horse in it should feel the draught. The two ends of the stable may be so contrived as to effect this object in this manner. Take twelve feet from the head wall to the opening for the stable door; allow eight inches for the two door-posts, and four feet six inches from the door. This will leave ten inches between the door-post farthest from the horses and the back wall. This space, from the ground to the top of the door, should be left open, and covered with strong rabbit wirework, which should be permanently fixed. The door should be seven feet high, and cut into two parts horizontally, at a height of four feet. The lower part may be kept shut while the horses are in; the upper three feet may be open or shut, according to the state of the atmosphere. Plenty of light should be admitted from the hinder wall by narrow fixed windows made of slabs of strong glass, never to be opened. Windows opening in bad directions, and open sky lights, kill horses by wholesale. The arrangement described is suited for ten horses.

"It is important that the water which horses drink should be exposed to the atmosphere at least six hours before they are allowed to have it; and they should never be allowed to drink till they have eaten something. The colic is almost always occasioned by their taking large quantities of cold water into empty stomachs.

"The temperature of the cart-horse stable should be as little above the external air as may be, to keep the inmates comfortably warm. The working cart horse, when turned out to grass in the summer, may have in the stable 8 or 10 pounds of bruised oats, mixed with a little hay and straw cut together into chaff. In winter time he will consume, entirely in the stable, of bruised oats, 10 pounds; of hay and straw cut together, 7 pounds each; of cut roots, 28 pounds, given with the oats and chaff. When roots cannot be had, 1 pound of dry bran to each horse per day may be used instead. The disease called greasy heels in horses is caused by washing their feet at night and not thoroughly drying them afterwards. They should not be washed, but wiped down clean."



## MANAGEMENT OF SHEEP IN WINTER.

A writer in the *Stock Journal*, gives the following as the result of his experience and observation, on the above subject :

I do not pretend to superior skill in the management of sheep, but having been engaged in sheep raising for the western market for the last six years, my mind has been occupied considerably with this subject. I have visited some of the best herds in America, noted the care and attention paid the best flocks in winter, and I think I am prepared to throw out a few practical hints upon this subject. And,

1st—*Sheep should be Sheltered.*—That sheep require a good, clean, dry place, wherein they can be sheltered from storms, must be apparent to all who will reason a moment upon the subject. Storms, where the wool becomes saturated with water, not only impair their health, but wash out the natural yolk of the wool, necessary for its continued growth. All good wool raisers are agreed in this, and shelter and keep dry their sheep, especially in winter. The farmer will find himself abundantly rewarded by taking a little pains in this particular. And even if he has no sheds for his sheep to continually occupy in case of a storm, it is a good plan to turn the flock in upon the barn floor until the storm is over. It will richly repay him for his trouble. In fact, I would rather my sheep should be shut up twenty-four hours, without food, than to be exposed to a long cold storm.

By examining the fibres of wool upon the sheep's back, you will find them to be hollow, like the hair upon our heads. If these fibres are suffered to collapse by means of exposure to the snows and rains of winter, the growth of wool is retarded, and it will take a long time, with the best care and treatment, for nature to re-open the fibres and produce again their natural health and vigor.

Says a prominent wool-grower: "The advantages of housing sheep are manifold. 1st—A large percentage of deaths are avoided. 2d—Much less food is consumed. 3d—A much heavier and better fleece is obtained. 4th—The flock comes through the winter in a much finer condition. 5th—The lambs are more vigorous and likely to live. In short, reason, economy and humanity, all conspire to teach the important lesson—*provide suitable stables for your sheep.* And he who can, and will not do it, ought himself to sleep barefooted and alone, on a couch of straw, with open windows, and under a leaky roof, where the winds go piping and careering through every crack of his cabin, for six months at least, until he shall have learned to sympathize with the dumb beasts God has committed to his care and keeping."

2d.—*Sheep should have Water.*—Many suppose

that sheep can get along very well without water in winter, especially if they can get snow to eat. This is another great mistake. Sheep do not drink large quantities at a time, but require it often; especially if they are not fed with roots. Just observe the operations of your sheep during the day, when fed with dry hay. They will run to the trough and take a few swallows of water, and then back again to their hay, a number of times during twenty-four hours; and that too when the ground is covered with snow. Sheep undoubtedly will winter without water, but common sense teaches us that they cannot do as well without as with it, for the fluids of the system must be supplied to keep up a healthy organization. In Vermont, where water is plenty for all, and within the reach of all, that farmer who neglects this most important suggestion, should be compelled to go without himself for a short season—sufficiently long to teach him that water is necessary for health and well-being.

3d.—*Sheep should be Fed with Roots.*—That sheep require some kind of green or succulent food for winter use, I have demonstrated to my satisfaction. For a few years past I have fed potatoes and turnips to a portion of my sheep, and I know they have done much better than those which have been wintered without.

I raise some three hundred bushels of potatoes and one hundred of turnips, annually, which I cut up together, and mix in a little oat meal or wheat shorts, and my sheep do remarkably well upon such feed. Especially is such food good for sheep about to have lambs, for it will make them have milk, should they lamb any time during the winter.

I think giving green feed to sheep in winter is generally overlooked by our farmers. European wool-growers consider this point of great importance. Morrell, in the "American Shepherd," says, "The feeding of green food, such as potatoes, apples, hemlock or pine boughs, &c., is strangely disregarded by a large majority of American wool-growers. This is a prominent point of attention in German management; indeed, it is thus in every section of the continent, where fine-wooled sheep are cultivated. The sheep, if placed in localities suitable to its general habits, at no season of the year is so perfectly healthy and thrifty as during the season of pasturage; and from this the inference should be deduced, that succulent food is the prominent inducing cause. Confinement wholly to dry food does not comport with that variety of condiment which has been urged so frequently, and consequently if a provision is not made of something else, it will be followed by disorganized action of the digestive functions, producing costiveness and constipation. The disease so frequent and fatal in American flocks, called the "stretches," results from costiveness; but

this is scarcely known in England, which arises from the large variety of food the sheep are supplied with during the winter months. In addition to this, further proof may be found in the fact, that it is never known to attack the animal during the grass season. The writer speaks from personal observation, in stating that a supply of green food is indispensably necessary as a preventive of this disease. In addition to green food operating thus, it has a tendency to increase the wool and yolk secretions, and thereby those valuable properties of wool, such as elasticity, softness and soundness, are increased and perfected; and withal, being conducive to health, the condition is improved, and consequently an augmented quantity of wool is a certain result.

These hints, though often repeated, may have a tendency to do good if properly appreciated. G.

**ENDURANCE OF HORSES.**—Some curious experiments have been made at the veterinary school at Alfort, (just outside of Paris) by order of the Minister of War, to ascertain the endurance of horses, as in besieged towns for example. It appears that a horse will live on water five-and-twenty days; seventeen days without eating and drinking; only five days if fed but unwatered; ten days if fed and insufficiently watered. A horse kept without water for three days drank 104 pounds of water in three minutes.—It was found, too, that a horse taken immediately after "feed," and kept in the "squadron school," completely digested its "feed" in three hours; in the same, in the conscript's school, its food was two-thirds digested; and if kept perfectly quiet in the stable its digestion was scarcely commenced in three hours.

**RAISING CALVES.**—"Take the calf from the cow when quite young, say a day or two old, learn it to drink new milk first, in such quantity as it will take, as there is not much danger of its taking too much when so young. When it drinks well, skim the milk that has stood from morning till night, or night to morning, and heat it, so as to give it to the calf blood warm, and two quarts at a time twice a day; when the calf is a week or two old, let the milk stand longer before skimming, and as he grows older increase the quantity, till it gets to four quarts at a time, twice a day. If the milk is scalded, and then cooled to blood heat it will be better. If the milk is given cooler than blood heat, it causes the calf to scour, which is injurious."

**OVER-REACHING.**—To prevent horses over-reaching in traveling, a writer in the Rural New Yorker says: Let the blacksmith make the "heel corks of the fore shoes high and the toe corks low; and the toe corks of the hind shoes high and the heel corks low." An infallible remedy.

## PERIOD OF GESTATION IN COWS.

One of the most satisfactory experiments relating to the subject, on record, is the one made by Earl Spencer, and the particulars of which are given in the English Agricultural Society Journal.

The table given contains the results in the case of seven hundred and sixty-four cows, and the following statements abridged from the paper, will exhibit some of the most important of the details:

*First*—It appears that the period of gestation varied from 220 days to 313 days; or no less than 90 days. Lord Spencer was, however, unable to rear any calves produced under 242 days. All under 260 days, and over 300, he thinks are decidedly premature, or irregular.

*Second*—As 314 cows calved before the 284th day, and 310 after the 285th day, the average period of gestation must be considered as between 284 and 285 days; although the time stated in the work on Cattle by the London Society states it at 270 days.

*Third*—It appears, that omitting those considered as premature or irregular, the cows whose period of gestation did not exceed 286 days, produced 233 cow calves, and of bull calves 234; while from those whose period exceeded 286 days, the cow calves were only 90, and the number of bull calves was 152.—This certainly gives some support to the opinion so prevalent among farmers, that when a cow exceeds the usual time, the produce will be a bull calf.

*Fourth*—There were 7 cases of twin cow calves; 5 cases of twin bull calves; and 11 cases of twin cow and bull calves. Earl Spencer has never had a case in which the sexes were different, in which the heifer was a breeding one: they have uniformly been what are termed *free martins*. The cattle of which the above record has been kept, are the pure improved Short Horn breed, and one of the finest herds in Great Britain.

### Item. for Hor. emen.

**SLABBERING HORSES.**—A correspondent of the Boston Cultivator says, "horses will not slabber when turned on wet land." His remedy for slabbering is to give them one or two burdock leaves, which he avers will stop it in less than five minutes. He says "you cannot get a horse to eat lobelia in any way of his own accord."

**A MARE OUT OF ORDER.**—The London Field recommends the following treatment: "Administer immediately five drachms of aloes in a ball. After the effects of which have passed off sprinkle nightly over a feed of oats, half an ounce of liquor arsenicallis; the administration of the latter to be continued for six weeks.

**BAULKY HORSES.**—A noose placed around the under jaw of the animal, just below the front teeth, will enable one to obtain a complete mastery over him, by leading him or holding him with the end of the rope.



## USEFUL RECIPES.

**FOR SCOURS OR DYSENTERY IN HORSES.**—One-fourth of an ounce of gum gamboge, half an ounce of aloes; half an ounce of salpetre; reduce all to a fine powder; add flour and water till it makes a thick dough or paste. Divide it into four pills; give one pill every night and morning. Give the horse half an ounce of ipecacuanha, dissolved in about two quarts of hot water, by adding half a pint of this solution into a pail of water for him to drink every four hours. When the fever has abated, take a quart of oak bark, pour two quarts of hot water upon it, and let it stand till cool. Give the horse a pint of this bark tea in a pail of water, and let the horse drink of it freely.

*Another.*—Take a table spoonful of saleratus, reduce it to a powder, and give it to the horse in a pint of new milk. Repeat the dose if necessary.—This remedy has proved effectual in some severe cases.

*Another.*—Put into a junk bottle one pint of good gin, and one ounce of indigo; shake well together, and turn it down the horse. It will usually effect a cure in a very short time.

*Another.*—It is stated that the bark of the sweet gum, or liquid amber tree, of the west, is a certain remedy for the dysentery, in man or beast, and that in a multitude of cases, he has never known it to fail.

**BRUISING OATS FOR HORSES.**—The fact that oats are frequently undigested, and pass through the horse without change, should be sufficient to show the importance of bruising—for certainly no benefit can be derived from that which is undigested by the animal. Experiments made by the London Omnibus Company and others, show that a smaller quantity is required to produce the same ability to work, when the oats are bruised, than when fed whole.

**SORE BACKS, OR GALLS IN HORSES.**—Rub white lead in sweet oil until a good paint is made, and apply a coating of this to the injured place. Milk will do, where the oil is not to be had. It is one of the effective applications. Some for the same difficulty use a solution of vitriol in water, for a wash; but in most cases, the white lead is to be preferred.

**ROUP, OR GAPES IN POULTRY.**—Soap mixed with the food of chickens, or Indian meal wet up with soap suds, and fed to them, is said to be a cure for this disorder, that is so fatal to poultry.

**FOR WEAK OR SORE EYES.**—One of the best and easiest applications for weak eyes, is to take a small piece of copperas, (white is the best,) of the size of a pea, and dissolve it in a two ounce vial of soft water. When clear, this may be used for bathing the eyes, and with the best effect.

## The Dairy.

### BUTTER MAKING.

Milk as it comes from the cow is about blood-heat, or 98° Fah. It should be cooled off as little as possible before coming to rest. With this object in view, the pails may be rinsed with hot water before milking, and the distance from the place of milking to the milk-room should be as short as possible; but, even with all these precautions, the fall in temperature will be considerable.

From what has already been said with regard to the manner in which the cream or oily particles of the milk rise to the surface, and the difficulty of rising through a great space, on account of their intimate entanglement with the cheesy and other matters, the importance of using shallow pans must be sufficiently obvious.

To facilitate and hasten the rising of the butter or oily particles, the importance of keeping the milk-room at a uniform and pretty high temperature will be equally obvious. The greatest density of milk is at or near the temperature of 41° Fah.; and at this point the butter particles will, of course, rise with the greatest difficulty and slowness, and bring up a far greater amount of cheese particles than under more favorable circumstances. These caseous and watery matters, as has been already stated, cause the cream or the butter to look white, and to ferment and become rancid. To avoid this, the temperature is generally kept, in the best butter-dairies, as high as from 58° to 62°. Some recommend keeping the milk at over 70°, and from that to 80°, at which temperature the cream, they say rises very rapidly, especially if the depth through which it has to rise is but slight. But that, in the opinion of most practical dairymen, is too high.

To obtain the greatest amount of cream from a given quantity of milk, the depth in the pan should, it seems to me, never exceed two inches. A high temperature and shallow depth, as they liquify the milk and facilitate the rising of the particles, tend to secure a cream free from the cheesy matter, and such cream will make a quality of butter both more delicate to the taste, and less likely to become rancid, than any other.

It has already been intimated, in another connection, that neither the largest quantity nor the best quality of milk is given by the cow till after she has had two or three calves, or has arrived at the age of five or six years. It may also be said, what cannot fail to have attracted the attention of observing dairymen, that in very dry seasons the quantity of milk yielded will generally be less, though the quality will be richer, than in moist and mild seasons.



Hence it may be inferred that moist climates are much more favorable to the production of milk than dry ones; and this also has frequently been observed and admitted to be a well known fact. From these facts it may be stated that dry and warm weather increases the quantity of butter, but it is also true that cooler weather produces a greater amount of cheese. A state of pregnancy, it is obvious, must reduce the quality of the milk, and cause it to yield less cream than before.

In the treatment of milk the utmost cleanliness is especially requisite. The pails, the strainers, the pans, the milk-room, and, in short, everything connected with the dairy, must be kept neat and clean to an extent which few but the very best dairy-women can appreciate. The smallest portion of old milk left to sour in the strainers or pans will be sure to taint them, and impart their bad flavor to the new milk put in them. Every one is familiar with the fact that an exceedingly small quantity of yeast causes an active fermentation. The process is a chemical one, and another familiar instance of it is in the distillation of liquors and the brewing of beer, where the malt creates a very active fermentation. In a similar manner the smallest particle of sour milk will taint a large quantity of sweet.

The milk-room should be removed from dampness, and all gases which might be injurious to the milk by infecting the atmosphere. If the state of the atmosphere and the temperature, as has been stated, affect it, all contact with foreign substances to which it is liable in careless and slovenly milking, and all air rendered impure by vegetables and innumerable other things kept in a house-cellar, will be much more liable to taint and injure it. Milk appears to absorb odors from objects near it to such an extent that a piece of catnip lying near the pan has been known to impart its flavor to it.

Milk, as sold in most large cities, is often adulterated to a great extent, but most frequently with water. Not unfrequently, too, a part of the cream is first taken off, and water afterwards added; in which case the use of burnt sugar is very common for coloring the milk, the blueness of which would otherwise lead to detection. The adulteration of pure milk from the healthy cow by water, though dishonest, and objectionable in the highest degree, is far less iniquitous in its consequences than the nefarious traffic in "swill milk," or milk produced from cows fed entirely on "still-slows," from which they soon become diseased, after which the milk contains a subtle poison, which is as difficult of detection by any known process of chemistry as the miasma of an atmosphere tainted with yellow fever or the cholera. The simple fact is sufficiently palpable, that no pure and healthy milk can be produced by an unhealthy and diseased animal; and

that no animal can long remain healthy that is fed on an unnatural food, and treated in the manner too common around the distilleries of many large cities.—*C. L. Flint.*

MILK WHICH DOES NOT YIELD BUTTER, AND THE MEANS TO REMEDY IT.—M. Deneubourg addresses those who are chiefly interested in cases in which there is no disease of the mammary gland nor loss of milk, but a want of oleaginous matters in the fluid. In the causes of this deficiency of butter-making quality, he concludes that there are two principal ones, viz: idiosyncrasy and alimentation; but there is another which cannot be so easily defined, and which occurs in animals that are well kept, and whose milk has been previously rich in butter. It is to these that the remedy is principally directed. The remedy consists in giving the animal two ounces of the sulphuret of antimony, with three ounces of coriander seeds, powdered and well mixed. This is to be given as a soft bolus, and followed by a draught composed of half a pint of vinegar, a pint of water, and a handful of common salt, for three successive mornings, on an empty stomach.

The remedy, according to the author, rarely fails, and the milk produced some days after its exhibition is found to be richer in cream. The first churning yields a larger quantity of butter, but the second and the third are still more satisfactory in their results.

TO IMPROVE CIDER.—Let the new cider be from sour apples—sound and selected fruit is to be preferred—ferment from one to three weeks, as the weather is warm or cool. When it has attained to lively fermentation, add, to each gallon, according to its acidity, from half a pound to two pounds of white crushed sugar, and let the whole ferment until it possesses precisely the taste which it is desired should be permanent. In this condition pour out a quart of the cider, and add for each gallon one quarter of an ounce of sulphate of lime, known as an article of manufacture under the name of "antichloride of lime." Stir the powder and cider until intimately mixed, and return the emulsion to the fermenting liquid. Agitate briskly and thoroughly for a few moments, and then let the cider settle. The fermentation will cease at once. When after a few days the cider has become clear, draw off and bottle carefully, or remove the sediment and return to the original vessel. If loosely corked, or kept in a barrel on draught it will retain its taste as a still cider. If preserved in bottles carefully corked, which is better, it will become a sparkling cider, and may be kept indefinitely long.

Diligence enforced by energy, should be guided by good judgment.

## The Apiary.

### BEES EASILY MANAGED.

The mass of beekeepers do not yet seem to understand that bees are rendered perfectly subservient to their master's will. They can be rendered as harmless as so many flies. An application of the axiom "Bees when gorged with liquid sweets never volunteer an attack," is all that is needed in order to handle them with impunity, even to tearing their hive all to fragments by piecemeal.

**How to Do It.**—When the bees have plenty of stores, close the hive so that no bee can escape.—Rap smartly on the hive a few times. After two or three minutes repeat the operation. In the course of ten or fifteen minutes the bees will have filled themselves with honey. You can then open the hive and perform any operation you wish without danger of being stung. If you have a bar or frame hive, remove the top quietly, and sprinkle the bees with water made sweet with sugar. After allowing them time to fill themselves, you can proceed to remove the frames or perform any manipulations necessary. But the easiest way to manage them is to quietly puff a little smoke in the hive (that from tobacco is the best) and they are at once rendered tame and agreeable. The easiest way is to have a pipe made on purpose to blow through, instead of by "suction" as in common smoking. By means of this pipe, any one, though not a smoker, can subject his bees to the soothing effects of tobacco smoke, and deprive them of all disposition to sting. Combs can be removed, worms destroyed, artificial swarms made, surplus honey removed, and all operations performed without the operator having on any "bee hat" or other protection to guard against their sting. If no bees are injured by squeezing or otherwise, no resentment will be shown. Do not use too much smoke, as it will stupify the bees. Bees seem to forget all about what you may do when they are under the influence of smoke, and will manifest no anger when afterwards approached, as they would do if you operated upon them without first subjecting them to this taming process.—*Corres. Scientific American.*

**VALUE OF PLOUGHS.**—Among the Kaffirs agriculture is considered to be a kind of labor unworthy of a warrior, and is therefore entirely left to the women. When they first saw a plough at work they gazed at it in astonished and delighted silence. At last one of them gave utterance to his feelings: "See how the thing tears up the ground with its mouth! It is of more value than five wives!"

## DOMESTIC RECIPES.

**WHEAT FLOUR PUDDING.**—Stir into a pint and a half of flour, a quart of milk. It must be done gradually, so that there may be no lumps. Beat seven eggs and put in, and add two table spoonfuls of melted butter, and 2 tea spoonfuls of salt. Grate in half a nutmeg. Half a pound of raisins may be added, but if the pudding is to be baked, they must not be put in till it has cooked long enough to thicken, or they will sink to the bottom. This flour pudding may be either baked or boiled, requiring an hour and a half to bake, and two hours to boil. If boiled the bag must not be more than two-thirds full, or it will burst in the boiling. It must be put into boiling water and kept boiling till done. After boiling a few minutes, turn the bag over; it will render the pudding light. Flour puddings must be eaten when cooked, or they fall directly. Serve them up with sauce.

**PLAIN RUSK PUDDING.**—Rusk your bread in the oven, and pound it fine; to five heaped table spoonfuls of it, put a quart of milk, three beaten eggs, three table spoonfuls of rolled sugar, a tea spoonful of salt, half a nutmeg, and three table spoonfuls of melted butter; bake an hour. It may be eaten without sauce.

**BOILED RICE PUDDING.**—Into a quart of boiling water put two tea cupfuls of rice, two tea spoonfuls of salt, and let the rice boil till soft. Then stir in a quart of cold milk, and half a pound of raisins, first taking the rice from the fire. Put in a couple of beat eggs, and half a grated nutmeg. Replace it on the fire, and let it boil till the fruit is soft.—Sauce, butter and sugar.

**BAKED RICE PUDDING.**—Boil a quarter of a pound of unground rice, in a quart of milk, till soft; then stir in a quarter of a pound of butter; take it from the fire, put in a quart of cold milk, two tea spoonfuls of salt, and a grated nutmeg. When lukewarm beat four eggs with one-fourth of a pound of sugar, and stir it into the pudding. Add half a pound of raisins, and turn the whole into a buttered pudding dish, and bake it three quarters of an hour.

**SAUCE FOR PUDDINGS.**—Common sauce may be thus made. Stir flour and water into boiling water, and sweeten to your taste with molasses or sugar. Add a spoonful of rose water, and a lump of butter half the size of a hen's egg. A glass of wine added with grated nutmeg, will make it very good. If sauce rather better than common is required, take a quarter of a pound of sugar, and the same of butter, mould them well together with your hand, adding a little wine. Mould it into a lump, and set it away to cool. Nutmeg must be grated over it, and it is fit for use.



# THE MARYLAND FARMER & MECHANIC.

AT \$1.50 PER ANNUM,  
PUBLISHED ON THE 1ST OF EACH MONTH,  
BY  
S. S. MILLS & CO.  
No. 24 South Calvert Street,  
CORNER OF MERCER,  
BALTIMORE.

TERMS.—\$1.50 per annum in advance. Six copies for \$7.50. Twelve copies for \$15, and a copy to the getter up of the club.

ADVERTISEMENTS.—For one square of eight lines or less, \$1 for each insertion—1 page for 12 months, \$100—single insertion \$16—other advertisements in proportion.

S. SANDS MILLS, } PUBLISHERS AND PROPRIETORS.  
E. WHITMAN, }

BALTIMORE, JANUARY 1, 1864.

THE FARMER AND MECHANIC will be mailed to a number of friends who may not have ordered it in advance—if it should be their wish to subscribe, they will please notify us between this and the issuing of the next number in February.

TO OUR AGRICULTURAL FRIENDS.—Our friends and the friends of agriculture, into whose hands this number may fall, will greatly oblige us by presenting the claims of "THE FARMER AND MECHANIC" to their friends and neighbours. There are many farmers and residents of the suburbs of cities and villages, who are not subscribers to any journal devoted to agriculture and its kindred sciences, who could be easily induced to forward us their names, if the character and claims of our journal were properly presented to them. A very little effort would secure a good list, in almost any neighbourhood.—Any one sending us *five* names with the cash, will be entitled to a sixth copy. Subscription price per annum, \$1.50.

TO OUR BRETHREN OF THE PRESS.—We invite an exchange with our brethren of the press—and respectfully ask that they notice the commencement of the publication of "The Farmer and Mechanic"—thereby placing us under still greater obligations for many favours heretofore extended.

TO CORRESPONDENTS.—Those who may have any useful facts at command, in relation to rural economy, or mechanics, are invited to make "The Farmer and Mechanic" the organ for their publicity—they will at all times receive a welcome. We suggest they be as brief as the subject will admit of.

## BALTIMORE AGRICULTURAL IMPLEMENTS AND MACHINERY.

Although Baltimore has long been noted for the superior excellence of her agricultural implements and machinery, it will surprise many of our readers to learn that the quality and variety of agricultural implements manufactured in this city is greater than in that of any other city in the United States. The sale of farm implements in New York and Boston is, indeed, more extensive; but the larger portion of them are manufactured in other parts of the country, and are forwarded to those cities to meet the demands from the interior and for exportation.

In Baltimore, the system is altogether different. Here, the principal houses in this line have their own factories, where they manufacture their implements; and as the work is executed under their own eyes, this is probably one of the reasons why it is better made and ranks so much higher than machinery and implements purchased elsewhere.

There are several houses in this city, that have been in this business for many years. Prominent amongst these are, Messrs R. Sinclair, Jr. & Co., E. Whitman & Sons, A. G. Mott, and W. H. Harding, all of whom have been engaged in the manufacture of Farm Implements and Machinery for more than twenty years. There are other establishments of a similar kind of a more recent date; but which have also become favorably known, and are doing an active business. Among the latter we may mention the houses of R. Cromwell, Thomas Norris, J. Montgomery & Bro., F. Ray, N. P. Chapman, Bruster & Griffith, and others.

As this is a branch of business of particular importance to the farmer, we beg leave to call his special attention to it, that he may not suppose, for a moment, it is necessary for him to look beyond Baltimore to supply himself with a complete variety and with the very best quality of agricultural implements now in use.

In making these statements, however, we wish it to be distinctly understood that we do not desire to detract from the merits of the many large and extensive manufacturing establishments in other cities. On the contrary, our wish is to attract attention to this branch of business, and to this end we propose to give, from time to time, accurate descriptions of various kinds of implements and farm machinery, whether they emanate from Baltimore or elsewhere, and whether they be new inventions or improvements upon old patterns. If the farmer can save a hundred dollars annually in labour, by the use of improved labour saving machines, his additional profit is equivalent to the same amount derived from the products of the soil. In this respect, therefore, the interests of the manufacturer of farm implements



and of the man who puts those implements to their appropriate use are identical.

There are very few who are aware of the extent to which the manufacture of Agricultural Implements has been carried of late years, both for home consumption and to meet an annually increasing foreign demand. It speaks well for their superior excellence to know that they are now exported to all quarters of the globe, the yearly aggregate of these articles being very large, and they are shipped not only to England, France and Germany where they successfully compete with similar articles manufactured in those countries, but also to Russia, Spain, Australia, to the South American ports, and even to remote settlements in Asia and Africa.

Among those engaged in the manufacture for exportation are R. Sinclair, Jr & Co. and E. Whitman & Sons, of our own city; Oliver Ames & Sons of Boston; Walter A. Wood, of Hoosick Falls, N. York; Cyrus McCormick of Chicago; R. H. Allen & Co., and I. T. Grant & Son of New York, and other houses whose names at present escape us.

We have referred to these matters, in this place and at this time, not only because they are interesting in themselves, but also because it furnishes us with an opportunity of saying a few words to the trade generally. "The Farmer and Mechanic" has been established to promote alike the interests of the agricultural community and of these establishments, without favour or invidious distinction, from which the supply of labour saving machines and implements is drawn. To those who conduct the latter, we say frankly, "come and share with us whatever amount of publicity our columns can give." We respectfully invite you to occupy as much space as you think proper in the pages devoted to advertisements, and we solicit from our country friends communications in regard to crops and the best mode of tillage; the raising and treatment of stock, &c.; and from our business friends such articles concerning new inventions as may be of advantage to the farmer and planter.

THE APPLE TRADE of Western New York was very extensive for the year 1863—a paper of Lyons says: "The price paid for fall fruit is about one dollar per barrel, the purchaser furnishing the barrel. Winter fruit will bring a higher price, probably. It is believed that more barrels of apples will be shipped from Wayne county this year than ever before, although the crop is considerably smaller than that of last year. West of the Genesee river, however, the yield was astonishingly large, and Monroe, Orleans, and Niagara counties sent out thousands upon thousands of barrels of fruit."

Even those who smoke and drink at the expense of others do so still more at their own.

THE CROPS OF THE YEAR.—Statistics collected and furnished by the Agricultural Department at Washington afford information on this subject of an instructive and deeply interesting nature. The total wheat product of the loyal States for 1863 is estimated at 191,068,239 bushels; oats, 174,858,167; corn, 449,163,894; buckwheat, 17,193,238; potatoes, 97,870,035. In 1862, the product was as follows:—Wheat, 189,993,500 bushels; rye, 21,254; barley, 17,981,464; oats, 172,520,997; corn, 586,704,474; buckwheat, 18,722,995; potatoes, 113,533,118 bushels. There has, therefore, been an increase of the wheat crop amounting to 1,074,739 bushels; of oats, amounting to 2,327,170 bushels, but a very large decrease in all the other crops, especially corn and potatoes—in the former amounting to no less than 137,540,580 bushels. About 40,000,000 of wheat and 11,680,000 bushels of corn were exported of the crop of 1862; but the crops in Europe this year have been very abundant, and the foreign demand for our surplus will thereby be diminished in proportion. The domestic consumption of corn is set down at 575,024,132 bushels annually, and at this rate there will be a deficiency this year of 125,869,000 bushels, and the hay crop is deficient about 1,624,000 tons. This quantity of corn allowed for home consumption is large and in a certain sense hypothetical.—Many millions of bushels of the crop of 1862 are still in storehouses, and millions have been wasted annually in the fields. The total supply of grain and potatoes this year, with all the deficiency, amounts nearly to a thousand millions of bushels, or about forty-five bushels to each person, and is sufficiently abundant for domestic consumption, with an overplus to satisfy a considerable foreign demand.

BRITISH COTTON TRADE.—From "The Board of Trade Returns," we learn that the value of cotton imported into England for the first nine months of 1862, was £11,664,699; for the same number of months this year, £26,861,993. The increase in quantity was 367,381,600 pounds, against 254,196,900 pounds in 1862. There has been a steady increase in the supply of cotton, considerable quantities coming from countries which previously had never furnished any. In Queensland, where the climate is similar to that of the Gulf States, as fine sea island qualities have been raised as in South Carolina. High prices have stimulated production. The cotton factories are gradually going into full time, and about two-thirds of the operatives who were unemployed in 1862 are now at work again.

MERINO SHEEP from Vermont have just been shipped for Australia. They were sent for by sheep farmers in the "bush" as the best that could be found anywhere.

THE FUTURE PROSPECTS OF ENGLISH FARMERS.—A writer in a London paper, speaking of the bad crops of former years, and low prices of the present abundant year, says:

"Our only hope of growing corn to advantage springs from machinery and improved cultivation. If the steam plow comes by renewed experiments to be an implement of general adoption, just as the steam thrashing machine is admitted to be, autumn cultivation will assume the fertility and advantages of a summer fallow. The farmer will be able to get all his land up in the early autumn. By the reaping machine—especially if the one horse reaper prove, as it promises, to be successful—the farmer will command the season for getting in his harvest, and will be able to apply all his hands to cart while the reapers cut the crop. Reapers will pay except where the furrows are deep and the deep furrows may be superseded where the land is well drained. By these and other like improvements combined with the utilization of sewage, if the price be halved the crop may be doubled. The equilibrium between cost of production and selling value may be restored, and the agriculturist may bring home to himself the truth of the proverb that life is, after all, only a system of compensations."

Upon the present system of farming the tenants are constantly complaining of their inability to "make both ends meet."

NUMBER OF PATENTS ISSUED IN 1863.—From the recent report of the Secretary of the Interior, it appears that during the year ending 30th September last, 5,133 applications and 811 caveats were received at the Patent Office. Twenty-nine applications were filed for the extension of patents previously granted. During the same period 3,887 patents were issued and forty extensions granted. Quite a diminution is observable in the number of claims on which patents have been allowed, but not issued because of the non-payment of the final fee within the time prescribed by law, the number being about 370.

THE AMERICAN STOCK JOURNAL.—We refer our readers to the Prospectus of 1864, of this popular and valuable Journal, devoted to the rearing of Stock, &c., and the very liberal offer of Premiums. We commend this excellent publication to every farmer in our State, believing it will amply repay them for the trifling outlay. It is published by C. M. SAXTON, New York city, at \$1 per annum.

NUMBER OF POST-OFFICES.—It will be seen by the late annual report of the Postmaster General, that the whole number of post-offices existing on the 30th of June, 1863, was 29,047, being an increase on the preceding year of 172. Eight hundred and thirty offices have been established, and 658 have been discontinued.

## SPECIAL NOTICES.

THE demand for all kinds of Improved Implements and Machinery, Garden and Field Seeds, Trees and Plants can be supplied, of the best quality, by the old and favorably known house of R. SINCLAIR, JR. & Co., 62 Light street, who are prepared to furnish the public, by their great manufacturing facilities, with every article needed, from a Thresher to a Bull Ring. The character of this old house is too well known to need any commendation from us.

EVERY thing useful, and many that are ornamental, in the way of Improved Implements, Machinery, Seeds, &c., can be found at the establishment of E. WHITMAN & SONS, 22 and 24 S. Calvert street, who have on hand and are constantly manufacturing every variety of labour-saving implements and machinery, now so much needed, owing to the scarcity of labour. This is one of our oldest houses, and can furnish you with every thing from the tiny Pruning Hook to the huge Hay Press, and on reasonable terms.

THOSE who sow must reap—and those who expect to reap should be looking round to make selection of a Reaper that will cut clean and quick—and such an one they will find in *Ray's Improved Junior Reaper and Mower Combined*—which is now offered by F. RAY, 505 Pratt street—who has recently added important improvements to this machine, which has received the endorsement of the first mechanic in our State, Ross Winans, Esq., which is the highest encomium that could be passed on it. This gentleman has used this Reaper for several years satisfactorily.

AFTER mowing and gathering your grass there is nothing like having it packed closely and with rapidity—we would therefore call your attention to R. WAKEMAN'S Hay Press, which he claims to be "the best packing machine in use"—those therefore, in need of a good Press will not fail to give it an examination and judge for themselves.

THE extensive and well known manufacturers of Agricultural Implements and Machinery, I. T. GRANT & SON, of New York, offer, through our columns, all sorts of labour saving machinery. This firm has a national reputation.

"STITCH! STITCH! STITCH!" goes the weary song—but the introduction of Wheeler & Wilson's Sewing Machine, has measurably robbed the ditty of its mournful pathos.—So fully has it commended itself to the public favor, that it is looked upon as indispensable in every department of industry, and the appointments of a well ordered household are incomplete without the Sewing Machine. Its popularity is best evinced by its enormous and increasing sales. W. MERRILL, 214 W. Baltimore street, is agent.

MORE relief is offered to our women folk through the muscle-saving Amidon's Improved Clothes Wringer. It is esteemed as a good Wringer, very simple, and those interested can examine the advertisement and then the machine, at E. Whitman & Sons, 24 S. Calvert street.

THOSE who are paying attention to Landscape Gardening, or intend putting out or increasing their orchards, or making additions to their gardens, will consult the offer of Trees, Plants, Vines, Roses, &c. made by W. D. BRACKENRIDGE, Rosebank Nurseries, Govanstown, Baltimore Co.

YOUR special attention is called to the select assortment of Apple and Pear Trees, both Standard and Dwarf—also Fruit and Ornamental Trees, Vines, &c., which are offered by our old and reliable friend, ISAAC PULLEN, Hightstown, New Jersey.



THAT which is taken from the soil, in the production of crops, must be returned in one form or another—accordingly B. M. RHODES, 82 South street, offers his Standard Super Phosphate, which is claimed as “a manure for all crops,” and which has been extensively used by our farmers, who will doubtless prove its efficacy in producing crops and act as their interest dictates. We learn that “Rhodes” took the large medal for the best Super Phosphate exhibited at the International Agricultural Exhibition, held at Hamburg, 14th to 20th July, 1863.

WHERE analyzes of Soils, Ore, and Guano is required, we can recommend G. A. LIEBIG, Ph. Dr., Analytical Chemist, 71 Second street. He is a gentleman of unquestioned scientific attainments.

### ICE HOUSES.

The perfect success, says a writer in one of our cotemporaries, which I met in keeping ice last summer, I think, is owing largely to a new principle involved in the building; therefore, I speak of the plan for the consideration of those who are about to build for that purpose. Instead of one hollow wall, for a non-conductor of heat, as in ordinary ice-houses, I have two, with a space *between* them, for *confined air*. The site is on a gravel slope. The foundation, for convenience in storing ice, is dug two feet below the surface of the ground. The outside wall, for non-conducting material, is six inches in the clear. The inside wall is four inches, with a space between for non-confined air of four inches. The doors for entrance correspond perfectly with the hollow walls in thickness, and are filled in the same manner—being shaped to shut with a bevel edge, like the door to safes used by merchants and bankers. At the lower side of the plates is a ceiling, upon which I put spent tan one foot thick, which tan is in direct connection with the side walls, so that any settling of the walls may be supplied from overhead. From the under side of the ceiling runs a ventilator, with a hole of one and a half inch bore, up through the roof, and is finished with an ornamental cap.

The room for ice is eight by ten feet in the clear, and eight feet high. Without a more minute description, I think the building will be understood.—If not, inquire further, any who wish to do so.—About all the waste of ice that I observed during the summer, was at the bottom; and this was so slow that we used the ice without regard to economy, for a large family, and in a dairy of thirty-five cows, besides giving freely to our neighbors.

I put sticks four inches thick in the bottom, to put ice on, and also some straw about the sides, as underneath the ice.

TO IMPART a fine flavor to ordinary tea, place rose leaves in the tea-canister, or add one drop of the otto of roses on a piece of soft paper to every pound of tea, and keep the canister closely covered.

[COMMUNICATED.]

### CULTIVATION AND CURING OF GRASSES.

NUMBER ONE.

The near alliance of man with earth being such its scientific and profitable culture becomes not only our duty, but a pleasing, natural and honorable employment,—in the prosecution of which it is all important that we act in conformity with the laws of nature. Science, in investigating and expounding these laws, is found in no class more graceful than with the tillers of the soil.

The industry, wealth, and zeal of farming communities in most countries have been expended in the improved method of cultivating grain, fruits, stock, vegetables, farming implements, machinery, &c. As a people we have been lavish in the importation of various kinds of stock, seeds, &c.—we are supplied with reports, essays and addresses, on most if not all branches of agricultural industry,—able treatises on the different animals, and many useful volumes on the cultivation of the different kinds of grain. But the grasses—the great and important product which supports all flesh forming the material nature of man himself—the cultivation and perfection of which becomes one of the first duties of the husbandman to promote, lying, as it does, at the foundation of all agricultural wealth. Notwithstanding all this, the subject receives from most agriculturists less thought and attention than is generally given to other subjects of rural interest. The American farmer cultivates, or, in other words, he bestows some attention on the cultivation of a very few kind of grasses, whilst the teeming earth, without tillage, furnishes innumerable varieties of this staff of animal life, in all latitudes of our wide spread country. No crop approaches so near a spontaneous uncultivated yield as the grass, and none pays so large a profit. Whilst it is impossible to state, with precision, the annual value of this crop, we do not hesitate to express the opinion, that in this country, the hay crop alone, imperfect as it is, and receiving so little attention, is greater at the present date, or was before the present disturbed state of our country, than the combined crops of rice, cotton and tobacco.

According to the census of 1840, the mere hay crop of the United States was 10,248,108 tons; in 1850 it had increased to 13,838,648 tons—a fair estimate of the increase of the crops at the present time, 1863, at \$12 per ton, would amount to the round sum of \$200,000,000. Notwithstanding these facts, we treat the hay crop as one of minor importance, and but little attention is paid to it,—the meadows must wait till the other crops are disposed of, then the grass is cut too often without any reference to its condition or any well prepared place for its reception.

We should endeavour to increase our knowledge by means of scientific investigation and judicious experiments with respect to this important branch of agricultural interest.

The farmer who understands the importance of bestowing careful attention upon his stock, is not careless in husbanding the grass which furnish them not only with food, but clothes them with flesh,—but how little does he think of the fact, that these very grasses have as great a claim on him for attention as the stock to which they are fed.

Grass cannot live without food and care, any more than our cattle and other animals, and hence there is a great field for study and care in the kind of soils and fertilizers adapted to the most successful production of grass. Care is needed in protecting them from injuries and depredations—many farmers spend money and labour in rendering their flocks secure from wild animals and in protecting his granaries from the pilferings of vermins, and yet think nothing of the noxious weeds that are constantly stealing from his grasses the food which nature has provided for them. Some friends of agriculture are making efforts to improve our grasses by the introduction of foreign varieties,—many of the English grasses are hardy and very nutritious—they may not endure our climate, but on the other hand it is possible that a change of climate would result in an improvement of the good qualities of a good grass. It will, however, be time enough to make experiments upon foreign grasses when we shall have learned more fully of our own native and spontaneous kinds, which, with proper culture, would prove an invaluable treasure. Within the boundaries of our vast national domain, in various latitudes, climates, soils, and situations, we have, I doubt not, more different kinds of grass than are found in any other portion of the globe, and yet the cultivation does not exceed twenty kinds. Nature gives us numerous kinds of those which arrive at perfection in different latitudes of our country during each successive month, from spring to autumn. A careful selection of such kinds adapted to soil and climate will be of much interest to farmers—and we propose in subsequent numbers of your paper to speak of these, their cultivation, curing, &c.

These few remarks are made, not with the conviction that I am offering any new facts for the consideration of any good farmer, but with the hope of inciting him to look with special interest into the subject of native grasses—the importance of cultivating a crop which is second to none that occupies the attention of farmers, especially considering the present facilities of packing, the great demand, and present value.

R. WAKEMAN.

*Port Deposit, December 15, 1863.*

**VALUE OF ASHES.**—Professor Jackson, in illustrating the manner in which soils might be rendered fertile, said that—“a farm within his knowledge, which was a blowing sand, a pine barren, and almost hopeless, on which ten bushels of corn to an acre could scarcely be grown, by the judicious application of ashes, had been made to produce forty or fifty bushels to the acre.” We do not question the correctness of Dr. Jackson's statements. Our observation has convinced us that on sandy soils, with the exception of clay marl, there is nothing more beneficial in the application to such soils, than ashes; and very fortunately, unless uncommon quantities of acid exist in such soils, leached ashes are nearly as beneficial as unleached ones. Ashes do what lime cannot; they render the soil more tenacious of moisture, and altho' their action is not as prompt or efficient on cold sour soils, they are for the reason assigned, considered as valuable on light sandy ones. Of this fact the farmers on the light soils of Long Island and New-Jersey, are well aware, and in the gathering and application of ashes, find a certain source of profit.

**FLAXSEED AND OIL CAKE.**—The finely ground flaxseed is to be preferred for feeding cattle, to that only crushed; either contains more oil than linseed cake, and on that account should be given cautiously at first, especially by those accustomed to feed liberally with the cake, lest it render the bowels too laxative; it will also take less of it than the cake to ensure the same results, and therefore more economical in price and the amount required, than oil cake.

**LIVE AND DEAD WEIGHT OF CATTLE.**—Eight lbs. out of every 14 lbs., or four-sevenths of the whole live weight of sheep and cattle, represents, when the animal is properly fat, the net weight of the fore quarters, exclusive of offal—three-fourths of the live weight of pigs, if fat, represents the weight when dressed; but pigs have frequently been killed of which the offal was only one-fifth their live weight and even less.

**COAL AND STEAM POWER.**—In a paper read before the British Association on the Coal and Coke Trade of the North of England, Mr. Nicholas Wood said it had been calculated that an acre of coal four feet in thickness produced as much carbon as 115 acres of full-grown forest, and that a bushel (84 lbs.) of coal consumed carefully, was capable of raising 70,000,000 lbs. one foot high, and that the combustion of 21 lbs. of coal gave out power sufficient to raise a man to the summit of Mount Blanc. The aggregate steam power of Great Britain he sets down at 83,635,214 horse-power, or equal to 400,000,000 of men.



## Horticultural.

### CULTURE OF ASPARAGUS.

From practical experience, I would advise to trench and drain the ground this winter, and have all prepared to plant pretty early in the spring.—Procure good plants, three years old. The price will be about seven or eight dollars a thousand.—Select a place not overshadowed by trees, but level or inclining to the south or south-east, and if possible, with a free, deep, rich soil. Have it drained so that no bottom or surface water will rest on any part of the bed, and the bed be porous enough to be dampened by evaporation from the under stratum.

To have a good, lasting and productive bed, the ground should be trenched to the depth of two feet. And here allow me, for the sake of the less experienced, to explain the process of preparing the ground and the method of cultivating the plant.

Commence at one end of the plat and take out a trench five feet wide and as long as the desired length of the bed; the earth from the first trench to be removed to a convenient place to fill up the last. Take out all poor subsoil, and level the bottom of the trench as level, or nearly so, as you wish to make the surface of the bed. The trench being leveled on the bottom, put in a layer of barn-yard manure all over it. Mark off the next trench the same width as the first, and cast the earth into the open trench, mixing a liberal supply of manure, taking care at the same time to mix the surface earth with the subsoil. Stir up occasionally with a fork, and in that manner continue trench after trench until the bed is of the desired size. Then level off the whole to a uniform grade. Have a quantity of well rotted manure to spread over the surface, to be forked under when planting.

The manner of planting is to stretch a line along one end of the bed, and with a garden spade strike straight down on the side of the line towards the cultivated ground, and open up a furrow deep enough to have the roots planted straight down against the side of the furrow without bending the lower ends of the roots, and have the crowns of the plant one and a half inches beneath the surface.—Lay enough earth around the roots to keep them in their places; then with fork or spade level around the plants; and fork up the ground until you have gone far enough to admit another row. The rows should be eighteen inches apart, and the plants one foot apart in the rows. In market gardens and extensive plantations where a great deal of labor is done with the plow, the plants are generally planted much thinner, for many reasons. The ground is seldom so well trenched or so well manured, and

consequently the plants require more room to form good heads.

The first year after planting, cut none of the young heads until autumn, when the straw has become yellow and the sap has descended. Then mow it down and when dry, burn it on the bed. After burning the straw, take a fork and stir up the surface, and pick out all white clover or other weeds that you can find. Before much cold weather comes, put on a top dressing of stable manure, the coarse part of which should be raked off early in the spring, and the fine forked under, and when forking the manure under, place the fork carefully in a very slanting manner, just going deep enough to lift earth to cover the manure, but not so deep as to wound the crown of the plant.

About four weeks of moderately warm weather will start the plants to grow, and when the sprouts have grown to be about five inches high, they should be gathered; and remember that they should be taken whether they are wanted for use or not, until you have concluded not to cut any more for the season. When the nights are warm, the crop should be cut every morning. The manner of cutting asparagus, is to have a knife with bill-shaped point and blunt back. Then take hold of the stalk of the plant and slip the back of the knife by the side of the stalk, half an inch under the ground, taking care not to wound the tender buds that have not yet appeared above the surface, and make a slanting cut upwards and towards yourself.

A top-dressing of salt will be found of great benefit to the crop, occasionally. Half a peck of rock salt to the rod will not be too much. Keep clear of weeds, and top-dress once a year. Cultivate as directed, and I will guarantee an asparagus bed that will last a lifetime.—*Boston Cultivator*.

♦♦♦♦♦  
**HOW TO GROW PEACHES EVERY YEAR.**—The following by a correspondent of the *Ohio Cultivator*, is worthy a trial by all lovers of delicious fruit:

Procure your trees grafted upon the wild Plum stock. The tree partakes of the nature of the plum, being hardy, and will never winter kill, and putting out late in the spring, will never be injured by the frost, and it is a certain preventive against the workings of the peach grub, while the natural lifetime of the tree is beyond that of our own; so you may depend upon peaches every year, and for a long period of time, without the destructive and discouraging influences attending the growth of the common peach. They can be obtained at from fifty to seventy-five cents per tree, and you had better pay five times the amount than not to obtain them, and be certain of peaches every year. Try it, and our word for it, you will be satisfied with the result.

## SHADE TREES, &amp;c.

There are few objects in the vegetable world really more interesting and beautiful than our noble forest trees. No country on earth is more blessed than ours; and none can boast of such a variety of magnificent shade trees.

He only who has a knowledge of trees and plants, and who has learned to appreciate their beauties, can enjoy the pleasures of the country. People who have not seen our native trees in open, airy situations, under good, careful culture, know nothing of their real beauties. An Elm, or a Tulip tree, crowded up in a thicket, with a tall, naked trunk, thirty or forty feet high, and a mere tuft of leaves on the summit, is a totally different object from the same tree standing on a lawn, with a finely developed form, and luxuriant foliage. Trees, like men, and more than men, show culture and care in the training.

The Elm, with its wide spreading and gracefully drooping branches, is one of the most elegant of forest trees. The Oak has always been held as the emblem of majesty and strength. It is one of the most magnificent, as it is one of the longest lived of the forest tribes, and its timber is valuable for its strength and durability. The Beech tree is truly a fine tree, and were it not so common, its noble appearance would be more generally appreciated.

What tree can be more beautiful than our Horse Chestnut, with its large and glossy foliage, and graceful clusters of flowers; or the Scarlet Maple, with its bright and early blossoms and silvery foliage; or the Shad-blow lighting up the woods with its flowers of snowy whiteness; or the Azalias, that will set the hills in a blaze of bloom; or the Kalmia, with its trumpet-like flowers; or the Mountain Ash, with its flowers in spring and its scarlet fruit in autumn; or the Locust, with its fragrant pink blossoms? Then our noble White Pine, Hemlock, Balsams and Spruce, Hickory, Butternut, Black Walnut, &c. Why neglect such treasures, and seek for foreign species, not half so grand and beautiful? We would by no means discourage the introduction and planting of rare and fine exotics; they should be mixed with our native trees to give the plantation an air of keeping and cultivation.

There is, we are happy to say, a great taste growing up throughout our country, and especially around cities and villages, for planting shade and ornamental trees. Thousands and thousands of dollars are annually expended in ornamental planting, and whilst rare and costly exotics are gathered from all parts of the world, our own beautiful trees are neglected.

How much might be added to the appearance of many, indeed, of most of our farms and country

residences, if proper attention were paid to the planting of shade trees in their appropriate places. Nothing in our estimation, contributes so much to the pleasantness of a place as the presence of fine trees, and surely no luxury of half the value can be procured for the same price. The cost of procuring and planting a shade tree is so trifling, that on this score at least, there is no excuse for the frequent omissions of duty in this respect. We say duty, because the planting of trees, particularly fruit trees, is obligatory upon every one who has enjoyed the labors of his predecessors in the same direction.—Every generation is to a great extent dependent upon the one which precedes it, for its supply of fruit and shade. But there is another light in which the planting of fruit and shade trees may be regarded as a duty. The decrease of insectivorous birds, and the consequent alarming increase of destructive insects is in a great measure attributable to the fact that one by one, the trees that offered a refuge have been cut away, and these useful little fellows, properly indignant not only at this decided want of taste, but total disregard of their comfort, have taken up their abode in other sections, never to return until their favorite haunts—trees—are returned to them. Handsome fruit and ornamental trees judiciously planted not only advance the beauty, but add greatly to the value of farms.—*Gen. Far.*

**PLANTING TREES ON CLAYEY SOIL.**—A clayey soil is unsuitable for fruit trees, but by draining, deep digging and manuring may be made tolerable.—Thorough and deep draining is, however, essential, and without this, all attempts to cultivate fruit on such a soil will prove more or less a failure. On such soils, also, the holes for the reception of the roots must be made broad, and filled with rich surface soil, or such as will be permeable to the roots. The holes should be at least from six to eight feet across, that there may be ample space for the young roots to spread before the poorer soil is encountered. In planting trees, imitate nature, and do not plant too deep, certainly on tenacious soils. The roots of all plants shun stagnant water, with the exception of a small class; and it is particularly fatal to fruit. In some parts of Belgium, where a clay soil prevails, a trench seven or eight feet in width, and two or three feet in depth is made across the field or fruit garden, filled in with permeable richer soil, and in this the rows of trees are planted, the continued trench carrying off the surplus waters.

A FLAX COTTON mill is fitted up at East Toledo, Ohio, which is expected to consume 4,900 pounds daily of raw material, and produce 2,000 pounds of cottonized flax. Eastern satinet manufacturers have agreed to take it all.



## Ladies Department.

### MY WIFE.

Long years ago I met a child,  
 As through the world I past,  
 She was the first star of my life—  
 The dearest, and the last.  
 An angel child, by some strange fate,  
 To earth a dweller driven,  
 Who brought her virtues to my heart,  
 And left her wings in heaven.

I dreamt not that this child of love  
 Would mine for ever be,  
 That she had come to tread this world,  
 This weary world, with me.  
 But as in kindness, side by side,  
 We wander'd, day by day,  
 The more I loved her, and the more  
 She seem'd inclined to stay.

'Twas strange, that from that very hour  
 I never knew a care,  
 But seem'd, through some unearthly dower,  
 A pleasant thing to bear;  
 And if perchance her gentle eye  
 E'er mark'd a tear in mine,  
 'Twas turn'd to smiles by her kind heart,  
 And treasured on its shrine.

Around my growing destiny  
 Her hopes all centred were,  
 For much I tried to make this world  
 A pleasant home to her;  
 And still within she seem'd content  
 To bear its rougher part,  
 Together with the joys she found  
 Whilst nestling at my heart.

And thus together, hand in hand,  
 We trod this vale of tears;  
 Our youth departing, but our love  
 Increasing with our years,  
 Forgetting all that outward world,  
 Made up of grief and sin,  
 But loving more the world above,  
 And a bright world within.

The cheek that closely presses mine,  
 Is furrow'd now by years,  
 For we have known the cares of life,  
 And we have wept its tears;  
 But God was ever kind to us,  
 Although the world was cold,  
 And we are growing happier,  
 As we are growing old.

There seems a brighter world in view,  
 A home from sorrow free,  
 A dwelling of eternal years,  
 For my dear wife and me.  
 And oh! the angel of my youth,  
 So good, and very fair,  
 I know will take her wings again,  
 And be my angel there.

It is better to be born with a disposition to see things on the favorable side than to an estate of ten thousand a year.

### MY WIFE'S NEW FRIEND.

BY SMITH JONES.

Mrs. Jones has quite a habit of cultivating sudden friendships, which have every appearance of blooming eternally, but which soon wither in the world's cold blasts. I used to think this characteristic was confined to school girls, who swear immortal fidelity in letters crossed and re-crossed, but forget each other as soon as they have caught a lover.

My wife's last acquaintance, in the way of a bosom friend, is Mrs. Mortimer Mowbray, with whom she became acquainted last summer, while we were boarding out of town. Mrs. Mortimer Mowbray had her carriage with her, and created quite a sensation; in fact every lady in the house was eager to become her confidant; but the amiable deportment of Mrs. Jones, combined, I doubt not, with her intellectual accomplishments, rendered her the favourite, and she it was who daily occupied the spare seat in the coach, and had the honour of advising Mrs. Mortimer Mowbray in those thousand grave perplexities under which women suffer.

We returned to the city after the Mowbrays; but my wife, though usually very firm on questions of etiquette, waived her privileges on this occasion, and made the first call. She was graciously received, and came home in high spirits. All that evening she could do nothing but talk of Mrs. Mortimer Mowbray. "Such an elegant establishment," she said. "A foot-man, with manners like a prince, waited at the door. The drawing-room was the perfection of luxury and taste. Mrs. Mowbray had on such a sweet cap, and altogether looked so lady-like. Her manners were, indeed, most aristocratic, just what one would suppose those of a countess to be."

In a few days, Mrs. Mortimer Mowbray returned my wife's call, coming in a shining new carriage and with a new span of horses. Her equipage created quite a sensation in our street.

Mrs. Jones, soon after this, began to act as if brooding over some vast design, which not being yet quite matured, she deemed it wisest to be silent respecting. At last, however, the mighty secret was broached.

"I was thinking, Jones," she said, one night, just as I was composing myself to sleep on my pillow, "that we ought to give a party. Not a regular ball, indeed, but a select entertainment where a few congenial minds may be brought together. I should like to introduce my dear Mrs. Mowbray to some of the choicest of our set."

Now I detest parties, small or large, but as the delicacy of my wife's nerves does not allow of her being thwarted, I made no objection to this proposal, though I sighed to myself.

"Of course, my dear," I said. "You know best."

"We'll ask about thirty," continued my wife, warning with the subject. There's Mrs. Wharton, and Mrs. Horace Shinn, and Mrs. Price, and the three Misses Trelawneys;" and thus the dear creature ran on until she had mentioned about forty names, and I saw that her "select party of congenial souls" was going to be, after all, a crowded rout.

"You have forgotten the two Misses Howell,"—I said at last, when my wife stopped for want of breath.

The two Misses Howell were amiable, intelligent, and pretty girls, in whom I took a particular interest, because their father had once been an extensive shipping merchant, but having become reduced and died bankrupt, the sisters were compelled to earn a livelihood by becoming governesses. They had numerous rich relations on whom they might have billeted themselves, but, with a spirit of proper independence, they preferred to work for their maintenance, instead of eating the bread of charity. I had long nourished a romantic idea of seeing them married well, and had consequently made it a point always to invite them to our parties; to praise them highly to the young gentlemen there; and, in every other direct way, to assist in realizing my pet scheme.

"Ahem!" she said at last, clearing her throat. "Ahem; the Misses Howell are very nice girls, to be sure—that is, in their place—but as it is to be a select party, and as I have already mentioned rather too many, and as Mrs. Mowbray may not want to meet all sorts of people, and at ———"

"Stop my dear," said I, with a sigh, for I saw that my favourites were not to be invited, "you have given reasons enough. It is a great pity, though." And I sighed again—a sigh eloquent of passive resignation.

My wife heard my sighs, and her tender heart was touched. She paused a moment in embarrassment, and perhaps even revolved the idea of yielding to my wishes, but in the end she raised herself on her elbow, and said:

"Mr. Jones, do listen to reason. You don't know how foolish you make yourself about those Howell girls. They've been unfortunate, to be sure; and they're very passable, indeed; but there's a prejudice, you are aware, against girls who are governesses; and who knows but what Mrs. Mowbray would take offence at my inviting such persons to meet her. I shouldn't like to do it, indeed, without first asking her; and I can't do that this time. She's very particular, and so excessively high bred."

"Then I don't think she'd regard you the less my dear," I ventured to say, "for being acquainted

with two such excellent girls as Patty and Lizzy Howell."

"Mr. Jones, don't be a child," replied my wife, flinging herself to the other side of the bed. "At your age you should know something of the world. Exclusive people, like Mrs. Mowbray, don't care to meet nobodies. She was very choice, as you saw, whom she admitted to her acquaintance this summer; I may say, indeed, that I am the only one, of all she met, whom she recognizes now."

To have protracted the conversation would have excited my wife's nerves, and deprived her of sleep, so I said no more, but closed my eyes and courted slumber anew. I have no recollection of anything after that, till I woke the next morning, and leaving Mrs. Jones in bed as usual, went down to see that the fires were right, and to do the marketing while breakfast was being prepared.

The invitations to the party were issued that week, Mrs. Mortimer Mowbray graciously promising to attend.

When the important evening arrived, my wife was all nerves. At every ring of the bell, the colour rose to her face with expectation, but guest after guest entered without Mrs. Mowbray appearing. Her nervousness soon began to change to anxiety, and this, as the hours wore on, to disappointment and dismay. She delayed the supper for a full hour, thinking that her new friend might yet arrive; but in vain.

"What can be the matter, I wonder?" she said to me, as soon as we were alone. "I hope the dear babe is well. Perhaps, however, Mrs. Mowbray is herself sick. Dear me, I am afraid I shall not sleep for anxiety. The first thing I'll do to-morrow will be to call on Mrs. Mowbray and see what is the matter."

"Wouldn't that be against etiquette?" I ventured to ask. "It seems to me Mrs. Mowbray should send you a note, or message, or something of that sort, at least, to apologize for her absence."

Mrs. Jones did not reply in words, but she gave me a look. And *such* a look! it expressed all the indignation which her outraged bosom felt at having the slightest suspicion cast upon her friend.

When I came home to dinner that day, I saw, at a glance, that something had occurred to ruffle my wife's nerves. She had nothing whatever to say to me, but she scolded the servants and children incessantly. I knew that Mrs. Jones, if she thought it best, would tell me; and, if not that questions would only aggravate her secret troubles.

But the next day, having heard something that cast light on Mrs. Mowbray's absence from our party, I could not contain myself when I came home.

"Did you ever hear, my love," I said, as I began to carve the turkey at dinner, "that the Misses Howell had a married sister?"



Mrs. Jones looked sharply up, as if she suspected I meant more than I said; and then answered laconically :

"I heard it casually, but never asked further."

"It seems," I continued, "that Mrs. Mortimer Mowbray is that sister."

"I've heard so since," said Mrs. Jones, sharply, and turning to our second child, who was asking for the wing bone, she rapped him over the head, exclaiming tartly, "haven't I told you to wait till you're helped? Take that, now, and learn manners."

I allowed a minute and more to elapse, in order that my wife's ebullition might subside, when I remarked :

"Mrs. Mowbray, it seems, expected to meet her sisters here?"

"I shouldn't wonder if she did," snappishly said Mrs. Jones, looking down in her plate, and apparently absorbed in parting a wing-joint.

"When she found," I continued, "that her sisters were not asked, she grew indignant. She heard the reason, it seems. Your friend, Mrs. Wharton, whom you had made a confidant, told some lady, who told her; and hence her anger."

"I am sure I don't care if I never see the proud thing again," said my wife, reddening very much, but still without looking up. "One could not have supposed that *she* was a sister to the Misses Howell."

After another pause, I said :

"Did you call on Mrs. Mowbray, as you intended?"

Mrs. Jones was silent for a full minute, and seemed half disposed to decline answering altogether; but finally she blurted out the reply as follows :

"Yes, I did, since you must know. And she wasn't in. So at least the footman said; but if I didn't see her at the drawing-room window," and here she burst into tears of mortification and rage, "may I never eat another mouthful."

I saw that it would not do to continue the conversation; so I quietly ate my dinner, kissed the children, and, like Christian in the "Pilgrim's Progress," "went my way."

Of course the intimacy of my wife with Mrs. Mowbray ceased from the date of that fatal party, and, I am sorry to say, that the Misses Howell also have, as the phrase goes, "cut our acquaintance."

VISIONS OF THE PAST!—If some of our close, quiet chambers, pleasant rooms we have loved, were suddenly peopled with the phantoms of our old selves as we have appeared in many an awful hour when none saw us but God; if the dumb walls could reutter our words, the void air revive the impress of our likeness there,—what a revealing it would be! Surely we ought not to judge harshly, but each of us to have mercy upon one another.

## CHILDREN'S MANNERS.

Never go up and down-stairs, or about the house, like a trotting horse; step lightly, quickly, and orderly.

Never drag, or go slipshod, with your shoes untied or down at the heel.

Never enter a house or parlour with your boots all slush and mud, or sit down with your hat or cap on, bar-room fashion.

Never stare people in the face. Are you conversing with any one, look him in the face with cheerful, dignified, respectful assurance; this is right; but to stare idly or wildly at strangers, or any one, as though you had never seen a human face, is exceedingly impolite, and a sure mark of ill-breeding.

Be polite, modest and respectful to every one:—"Charity vaunteth not itself, is not puffed up, doth not behave itself unseemly, seeketh not her own." What more unlovely, and painfully disgusting, than to see a youth, a mere stripling, assume an air of self-importance, and disrespect towards his equals or superiors?

Never jerk, twitch, or slam doors, or window-shutters, or bring them too violently. Be cautious and gentle in all your movements; you may do serious mischief. We have known some little turbulents in passing out and in, shut the door with a slam-bang, give it a strong twitch, sufficient to shiver it! No polite or genteel boys and girls will do this.

Never be clownish or monkeyish! Some rude boys (not girls) seem to pride themselves in buffoonery or drollery, in low, vulgar tricks, antic gestures, foolish jesting, and odd expressions. This low, shameful vulgarity, may excite the laughter of fools—as none but fools will laugh at foolishness—"for the mouth of fools feedeth on foolishness;" but every one of good common sense must look upon such behaviour with perfect disgust and abhorrence!—And every youth, thus acting the buffoon or mimic, lowers himself in the estimation of the wise and the good.

COLOURS OF FLOWERS.—"Which are the most prevalent colours of flowers," &c. It appears that *white* is the most extensively distributed colour among flowers, and that the decided colours, red, yellow, and blue, are much more plentiful than violet, green, orange, or brown; red and yellow being nearly equal, and not much less numerous than white. From various experiments, it would seem also that white flowers are the most generally odorous, and among the other colours the red flowers have the greatest tendency, and the blue the least, to the formation of odoriferous substances.

"Most women live so entirely on the affections, that without love their existence is a void."

## The Florist.

FLORICULTURE—January, 1864.

Communicated for the "Farmer and Mechanic," by W. D. BRACKENRIDGE, Florist and Nurseryman, Govanstown, Baltimore County, Md.

All lovers of flowers, but particularly such as have plant structures, will find abundance of work necessary to be performed, even in this the bleakest and most backward month in the whole year for vegetation, but towards the end of it, this tardiness will be accelerated by the lengthening of the days, and increase of the sun's influence. The fire heat given at this season to a house containing *Geraniums* with other *Cape, New Holland*, and mixed plants, should range between 45 and 50° during the night, and not over 60° during the day, when air can be admitted, and this in mild weather can be given freely, while at the same time the plants may be syringed overhead with pure soft water, of the same temperature as the internal atmosphere.

Preparations ought now to be made for Spring work—as also to secure a good shew of such things as bloom at that season. *Calceolarias*, *Cinerarias*, and *Chinese Primroses*, either from seeds or division of the root, should, if they are pot-bound, be shifted into larger ones, using a compost of nearly equal parts of well rotted manure, loam and sand, observing to drain the pots well, and fumigate, as necessity may require, with tobacco, to kill the green fly. *Pelargoniums* ought to be repotted this month, and such as are of a straggling growth cut back, so as to secure bushy plants; a good earth for them is a compost of rotted sods, manure and sharp sand,—and to grow *Pelargoniums* well, by all means place them near the glass, where they will receive a large allowance of light and air. *Camellias*, in order to have their foliage of a lively green tint, should be so located, that the direct rays of the sun will not strike upon them; any of the plants that require shifting, should have this operation performed at once, and as the season advances give water more freely at the roots. *Azaleas* that are wanted to bloom early, may be placed in a warm part of the house, and then watered more freely; tie in all loose shoots, and if they are in the least infested by the black thrip, syringe with a weak solution of whale oil soap, or fumigate with tobacco—which last will also destroy this pest of an insect.

*Bigonias* are now become great favourites, the the herbaceous kinds may be divided and planted in fresh earth, consisting of well rotted leaves, manure and sand—drain the receivers well—they dislike stagnation of water, as most of them in their native habitation are found growing on trees or very

rocky situations; place the plants in a warm situation and water rather sparingly until such times as the plants begin to grow freely.

*Amaryllis* and *Gladiolus* roots can now be divided and repotted—put them away in a moderately cool place until they begin to grow, then give a more liberal supply of water after removing them into a gentle heat. The *Japan Lilies* that were potted in the fall and placed under the stage, may now be brought forward to the light, in order that their shoots may be strengthened, but let it be remembered, that these Lilies prefer a little shade, rather than to be exposed to the direct rays of the sun; and they also like their bulbs to be planted deeper under the surface of the earth than most others of the same family. A portion of the roots of *Achimenes*, *Gloxinia* and *Gesneria*, may be potted as a succession—these plants as a general thing require a loose porous, sandy-vegetable earth, with a warm humid atmosphere to grow in; therefore they should receive the most comfortable part of the greenhouse; but a hot bed or plant stove suits them better. *Fuchsia* plants less than six months old, should be shifted into larger pots, and kept growing; the old plants may now be pruned in, and the earth shaken from the roots, repotting them afresh, after which they should be moderately watered until they begin to grow.

Of the *Heath* and *Epacris* tribe we would advise that so soon as they are done blooming to prune them well back—they like it—but our gardeners generally err greatly, by not using the knife more freely on these beauties—for by so doing, and giving them a fibrous open earth to grow in, draining the pots well and keeping them cool, beautiful specimens can be obtained. *Acacias* and most other New Holland plants, like the same treatment, observing always not to prune them back until the flowers have faded. If there are any *Cyclamens* or *Neapolitan Violets* in the cold frames, they can now be removed to the greenhouse, where they will bloom freely—only take care not to overwater the *Cyclamens* at this season. *Ferns*, those graceful adorners of every plant structure, ought to be kept rather cool, and only moderately moist, and so soon as they begin to grow, repot them into an earth composed of a mixture of leaf mould, loam and sand,—when this is done remove them into a higher temperature. Put in cuttings of bedding out plants, and place in pots all such as have already made roots. Sow seeds of *Verbenas*, *Petunias* and *Pansies*—plants grown from these will flower in May next. Those who want *Roses*, can remove from the cold frames, and place in heat, a few plants every two weeks, so as to ensure a succession of flowers.

All miscellaneous plants not enumerated above should receive such attention as is due to their quality and condition at this season of the year.



In the Flower Department, little labour can be performed out of doors during the present month, but plants in cold frames should be frequently examined, in order to ascertain if the mice are not committing depredations on them; observe also to cover the beds well with straw mats, to keep out the frosts, and give air freely in mild weather.

When the ground is dry and free from frosts, we would advise, that the beds in the flower garden, that contain no roots, be turned up roughly with the spade, so as to expose the eggs of insects and clay particles to the action of the weather; it is also very advisable at this season of the year, to collect together old leaves, sods from head-lands, stable or sheep manure, sand, &c., throwing the whole into one heap, then turn it over occasionally until it becomes well incorporated, and when the planting season arrives you will find that this is just the compost you wanted.

## Mechanical.

### ENERGY AND APTITUDE OF AMERICAN MECHANICS.

In the course of some apposite remarks upon schools for the dissemination of correct mechanical knowledge, and the inculcation of the truths of science among the practical workers in machinery in general, the London *Engineer*, England, pays a deserved compliment to American mechanics and says that "many articles of machinery could now be imported here, were there a market for them, and sold under London prices. We know of many instances in which this could be done, and yet iron, and workmen's wages are one-half dearer on the other side of the Atlantic than here. The workmen are better educated, more ingenious, and somehow, although they do not work physically harder, turn out more work than our own mechanics. The cheapness of their work can only be accounted for on the principle of microscopic profits. Many of the marine engine factories, most of the locomotive works, and nearly every railway carriage factory in the States has been, at some time or other, bankrupt; a commentary upon the spread of engineering information."

The statements are all correct in the above quoted paragraph, but the conclusions and inferences of the *Engineer* are erroneous. Tools are made cheaper here and equal in quality to those abroad, because we have special machines for special work, and for the reason that the same tool is adapted to do many different kinds of work. In the locomotive shops of the East, this principle is of necessity carried to an extreme point. Some of the shops have failed, it is

true, because of the competition of the roads to which they furnished engines, on which they relied for payment and were disappointed. Workmen cannot be paid with bonds and coupons, and when a new engine is delivered once a week or month, as the case may be, we fancy it would endanger the stability of any shop to be paid in bonds, worth, perhaps, fifty cents in the dollar. Greater quantities of work are produced by the exercise of that keen ingenuity for which Americans are famous, as in fitting up brass boxes in the lathe instead of filing, as is usually done, and otherwise adapting means to ends. In many shops East one man will run two lathes, or two planers; and objectionable as this is in general, it is perhaps not so much so where the workman *contracts* to do it and receives wages accordingly. So also with apprentices; they are so only nominally, for in a short time they acquire as much dexterity as a journeyman; and, stimulated by an ambition to be considered "smart fellows," do as much work as one paid twice the wages they receive. Thus a journeyman may receive \$2 per day, while an apprentice obtains in his last year of servitude \$1, and is equal to a full hand. This being the average rate of pay down to \$1.50 *per capita*, and even still lower; for all journeymen do not receive \$2 per day by any means. The present time is an exception to this rule, as the demand for good workmen is greater than the supply. For patient and steady persistence on one kind of work, and for thorough and faithful execution, there is no artisan better than an English one; but the American workman "gets sick," as he phrases it, of sameness and monotony, and demands change; he is restless and uneasy under restraint and delay, and the work in our machine shops never goes on as well as when every man is put on separate and continually varied jobs, as far as possible, and feels that his handiwork will be contrasted with that of his fellows. This characteristic is only true of intelligent and conscientious men: for there are skulkers and drones to be found in all shops and in all countries. The system of discipline by which American machine shops in general are carried on is an extremely good one, for it conduces directly to the interest of all parties—the young apprentice and the employer. Time is money; and if by personal attention and a free access to all details of the trade, and an opportunity to acquire a thorough insight into the management of tools, our apprentices learn more quickly, it must be laid to the plan and not wholly to individual or national superiority. It seems not a little singular that a manufacturer should debar a youth from the privilege of learning as much and as fast as he desires. Such a course is directly opposed to reason and to common sense.—*Scientific American*.

## PATENT CLAIMS

ISSUED FROM THE U. S. PATENT OFFICE,

(APPERTAINING TO AGRICULTURE.)

From the 17th November to 1st December, 1863.

FROM THE SCIENTIFIC AMERICAN.

- 40,670.—Grain Separator.—Cyrus Bates, Hardin, Iowa.  
 40,675.—Harvester.—I. H. Collier, Poughkeepsie, N. Y.  
 40,676.—Grain-discharger for Harvesters.—J. D. Conyne, Lyndon, Illinois.  
 40,681.—Corn Planter.—Clinton Foster, Prairie city, Ill.  
 40,689.—Horse-shoe machine.—M. Hardaway, St. Louis.  
 40,690.—Machine for Sawing Laths, Palings, &c.—Smith Head, Millersburgh, Pa.  
 40,695.—Thrasher.—David Lippy and J. S. Bradley, Mansfield, Ohio. [This invention consists in a novel and improved construction of a straw carrier arranged with a grain conveyor, fan, shoe, screens and grain elevator, all arranged to operate in such a manner that the grain at one and the same operation, is thrashed from the straw and separated from it, and also separated from all foreign substances and impurities.]  
 40,697.—Butter Worker.—James B. Lyons, Milton, Conn.  
 40,699.—Machine Belting or Banding.—Thomas J. Mayall, Roxbury, Mass.  
 40,701.—Self-tightening Bands for Hay Forks.—James H. Melick, Albany, N. Y.  
 40,704.—Water Wheel.—Freeman Morse, Hastings, N. Y.  
 40,705.—Straw Cutter.—Wm. Newlin, Ash Ridge, Ohio.  
 40,709.—Horse Pitchfork.—Squire Raymond, Genoa, N. Y.  
 40,711.—Cider Mill.—Theodore Sharp, Louisville, Ky.  
 40,717.—Steam Plow.—Anson P. Thayer, Syracuse, N. Y.  
 40,721.—Gang Plow.—Lorenzo Wolf, St. Louis, Mo.  
 40,723.—Force Pump.—S. D. Gilson, Syracuse, N. Y.  
 40,725.—Beehive.—H. A. King and Jacob Loughmaster, Seal, Ohio.  
 40,733.—Plow.—A. B. Chapman, Pittsfield, Mass. [This is an ingenious and effective contrivance, whereby the mold-board of the plow is relieved of the greater part of the furrow slide and the power required to draw the plow correspondingly reduced.]  
 40,741.—Rotary Harrow.—Charles Daniel, Sigel, Mo. [The distinguishing features of this improved harrow consist first, in the shape of the frame; second, in the means employed for the purpose of connecting the draught pole to the frame, and third, in the application of gages or shovels on the outer ends or corners of the frame and set deeper than the teeth and crooked in such a manner that the same take deeper hold on one side than on the other, and cause the harrow to rotate as the same is drawn forward.]  
 40,751.—Churn Power.—Elihu Hoag, Rensselaerville, N. York.  
 40,759.—Operating Wagon Brakes.—James H. Lee, Leavenworth, Kansas. [By means of this invention the teamster is enabled to apply or release the brake at will, while seated upon his horse.]  
 40,760.—Corn Planter.—J. C. Leffel, Shelby, Mo.  
 40,762.—Fruit Press.—John Manrow, Sacramento, Cal.  
 40,766.—Cultivator.—Samuel H. Mitchell, El Paso, Ill.  
 40,767.—Grain Separator.—J. A. & J. W. Miller, La Grange, Indiana.  
 40,770.—Grain Drill.—Martin Rich, Horicon, Wis.  
 40,775.—Device for Operating Churns.—Henry Soggs, Columbus, Pa.  
 40,777.—Farm Gate.—A. C. Teel, Girard, Ill.  
 40,780.—Grain Drill.—W. W. Tuttle, Gratiot, Wis.  
 40,782.—Hay Rake.—John Wallace & Daniel Carpenter, Goshen, N. Y.  
 40,786.—Potato Digger.—Albion Wheeler, Mallory, Iowa.  
 40,789.—Corn Planter.—G. J. Bergen, Galesburgh, Ill.  
 40,793.—Horse Rake.—Jacob Farmwalt, German Township, Ohio.

## BALTIMORE MARKETS--DECEMBER 21.

[Unless when otherwise specified the prices are wholesale.]

Flour.—No sales reported on 'Change. Market heavy at the close. Prices, which are very unsettled, we quote as follows:

Howard Street Super and Cut Extra.....	\$7.25	a	0.00
“ “ Shipping Extra.....	7.50	a	7.62½
“ “ Retailing Extra.....	7.62½	a	0.00
“ “ Family.....	8.50	a	0.00
Ohio Super.....	7.12½	a	7.25
“ Shipping Extra.....	7.50	a	0.00
“ Retailing Extra.....	7.50	a	0.00
“ Family.....	8.25	a	0.00
City Mills Standard Super.....	7.00	a	0.00
“ Shipping brands and Extra.....	8.75	a	9.00
Baltimore Family.....	10.25	a	0.00
“ High-grade Extra.....	9.75	a	0.00

Rye Flour.—Prices drooping. Sales of 150 bbls. fair quality at \$6.75 per bbl.

Corn Meal.—No sales. Stock of City Mills light and held at \$6.25 per bbl. No Brandywine in the market.

Grain.—There was an unusually light supply of Grain at market for Monday, the receipts on the Corn Exchange comprising only 5,500 bushels: Wheat, 4,000 do. Corn, and 600 do. Oats. Corn was in fair request and firm, but the other descriptions moved slowly and closed heavy. Sales of good and prime Southern white Wheat at 18c½; cents; fair do. at 18c½; cents; medium do. at 17c½; cents; damaged and common do. at 16c½; cents; fair and good Southern red at 15c½; cents, and tough and inferior do. at 14c½; cents. New white Corn at 11c½; cents; yellow do. at 11c½; cents, and old crop of both colors at 12c; cents. Maryland Oats 73½; cents, measure, and Pennsylvania do. 89 a90 cents, weight. Maryland Rye 15c½; cents per bushel. Prime samples of Wheat were scarce and firmly held.

Molasses.—Sales reported of 60 hhd. Cuba on private terms. We still quote Clayed Cuba 40a45 cents; do. Muscovado 45a55 cts.; English Island 50a60 cents, and Porto Rico 55a60 cents per gallon.

Provisions.—Very little doing but prices unchanged, viz: New Mess Pork at \$19; old do. at \$17, and new Prime at \$16.50. Old Bacon Shoulders at 8a8½ cents; new do. at 8½ a9 cents; Old Sides at 9½ a9½ cents; no new in the market. Sugar cured Hams at 13a14 cents; plain do. at 12 cents, and green do. from the block at 10½ cents. Bulk Shoulders at 7½ a7½ cents; Sides at 8½ a9 cents; new city rendered Lard at 12½ a12½ cents; no new Western; Baltimore refined at 14½ a14½ cents per lb.

Salt.—Sales from store are to a fair extent and prices unchanged, viz: Ground Alum \$2 30; ordinary brands of Fine \$2.65a\$2.70, Ashton's \$2.85 per sack, and Turks Island 60 cents per bushel.

Seed.—Clover comes forward sparingly and prices tend upwards under a fair inquiry. Nothing doing in Timothy and Flaxseed. Clover we now quote at \$8.25a\$8.62½, Timothy at \$3, and Flaxseed at \$2.95a\$3.05 per bushel.

Sugars.—We notice more inquiry for Grocery descriptions. Nothing doing in refining grades. Sales embraced 50 hhd. common Cuba Grocery at 12a12½ cents, and 30 hhd. good and prime Porto Rico do. at 13a13½ cents per lb. net cash. Prices ranged as follows:—

Cuba and E. I., common to good refining.....	12.00a12.25
“ “ “ “ grocery.....	12.25a12.76
“ “ “ “ prime grocery.....	13.00a13.25
Porto Rico, common to good grocery.....	12.50a13.00
“ “ prime to choice grocery.....	13.50a13.75

Whiskey.—Sales of 150 bbls. City at 92 cents. Ohio now held at 93 cents—an advance of 2 cents per gallon.

NEW YORK, December 21, P. M.—Cotton has a declining tendency—sales of 600 bales at 8a8½ cts. Flour has an upward tendency—sales of 18,500 bbls. at an advance of 5a10 cts.; State \$6.20a\$6.35; Ohio \$7.50a7.65; Southern \$7.60a\$8.10. Wheat firm—sales of 93,000 bushels; Chicago spring, \$1.46a\$1.50; red Western \$1.55a\$1.60. Corn has declined 1 ct., sales of 54,000 bushels; mixed \$1.28a\$1.29, in store, chiefly at \$1.29. Pork closed buoyant; new Mess \$19a\$22. Lard closed buoyant at 11½ a12½ cents. Whiskey closed firm at 90a93 cents, chiefly at 92 cents. Sugar quiet at 12½ a14½ cts.

JOKING.—Never risk a joke, even the least offensive in its nature, with a stranger or a person who is not well bred and possessed of sense to comprehend it. By heeding this advice you will save yourself mortification and pain.



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GROVER & BAKER.

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By I. M. Singer & Co.....10,953

By Grover & Baker.....10,280

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We also offer a superior assortment of Hardy ROSES, FLOWERING SHRUBS, DAHLIAS, PHLOXES, GLADIOLUS, JAPAN LILIES, &c. &c. Terms reasonable.

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FOURTEEN NUMBERS FOR \$1.

One Premium of Taylor's South Down Buck Lambs worth \$50!!!

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## VOLUME SIXTH

Will commence JANUARY 1st, 1864. The Publisher has concluded to close the present volume with the December number, so as to commence the

## NEW VOLUME WITH THE NEW YEAR.

All our present subscribers will be supplied to May inclusive. All such may receive the JOURNAL to December, 1864, by sending *seventy-five cents* to the Publisher.

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1st.—Any person sending one hundred and fifty names and \$150, shall receive 150 copies of the Stock Journal and one of Taylor's South Down Buck Lambs—Price \$50, which will be delivered in New York to order.

2d.—Any person sending one hundred and twenty-five names and \$125 in money shall receive 125 copies of the Journal and one of Taylor's South Down Buck Lambs. Price \$40.

3d.—Any person sending us one hundred names, and \$100 in cash shall receive 100 copies of the Journal and one copy of Herbert's Horses of America, Price \$10, and one Farmer's Encyclopedia, Price \$5.

4th.—Any person sending us seventy-five names and \$75 in money shall receive 75 Journals and Coleman's Agriculture, Price \$3, and Randall's & Youatt's Shepherd's Own Book, Price \$2.

5th.—Any person sending us fifty names and \$50 in money, shall receive 50 Journals and Randall's & Youatt's Shepherd's Own Book, Price \$2, and Randall & Youatt on the Horse, \$1.25, and Randall's Fine Wool Sheep Husbandry, Price 75 cents.

6th.—Any person sending us twenty names and \$15, shall receive 20 Journals and one Shepherd's Own Book, Price \$2.

7th.—Any person sending us ten names and \$8, shall receive 10 Journals and one Herbert's Hints to Horse Keepers, or Youatt & Martin on Cattle, \$1.25 each.

8th.—Any person sending six names and \$5, shall receive six Journals, and one Allen's Domestic Animals, 75 cts.

9th.—Any person sending three names and \$3, shall receive 3 Journals, and one Randall's Fine Wool Sheep Husbandry, Price, 75 cents.

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CHARLES HALL, R. D. HALL, W. T. WEST, of Rowlands-ville, Md., say: "We know of no Press which will compare with yours for general Pressing purposes."

DAVID KIMBLE, of Kimbleville, Chester county, Pennsylvania, says: "Having undertaken to fill a large hay contract for the Government, I purchased several Hay Presses in Philadelphia, reputed to be the best in use, and also two of the Wakeman Presses, and I am fully satisfied that the latter Press is far superior to any of them. With the same amount of labor nearly double the quantity of hay can be baled with the Wakeman Press than can be packed with any other I have used."

GEO. P. WHITAKER, of Principio Furnace, Cecil county, Md., says: "The reputation of the Wakeman Press stands high wherever it has been tried, and from experience I would cheerfully recommend it for general use."

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JOHN W. EVANS, of Newark, Delaware, says: "I am now using the Hay Press I purchased of you, and find it to answer the purpose admirably, performing quite as well as you represented, and to my entire satisfaction."

LEWIS SHAPDESS, of Strickerville, Chester county, Pa., says: "I have used Wakeman's Hay Press, and am perfectly satisfied with its operations."

THEODORE GRAHAM, of Port Deposit, Cecil county, Md., says: "I have been in the business of Hay packing for years, and believing your Packer to possess superiority over all other Presses, I can recommend it without hesitation to all Farmers and Hay Packers as safe, fast, and with less hands and less wear and tear, than any other now in use."

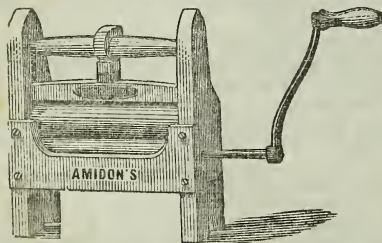
This is to certify, that we know Theodore Graham to be a man of good repute, and to have had much practical experience as a hay presser, and vouch for the truth of his statement.

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